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(54) Title: CRYSTALS OF CYTOCHROME P450 2C9, STRUCTURES THEREOF AND THEIR USE

(57) Abstract: The present invention provides cytochrome 2C9 proteins which have been modified to introduce a proline residue at positions 220 or 222 of the wild type sequence which can be crystallised to provide high resolution structures. The structures may be used for homology modelling of other cytochrome P450 structures such as 2C8, 2C18 and 2C19, and for analysis of the interaction of ligands with P450.

WO 03/035693 A2

CRYSTALS OF CYTOCHROME P450 2C9, STRUCTURES THEREOF AND THEIR USE

Field of the Invention.

The present invention relates to the human cytochrome P450 protein 2C9, methods for its crystallization, its X-ray crystal structure and the use thereof.

5

Background to the Invention.

Cytochrome P450s (CYP450) form a very large and complex gene superfamily of hemeproteins that metabolise physiologically important compounds in many species of microorganisms, plants and animals. Cytochrome P450s are important in the oxidative, peroxidative and reductive metabolism of numerous and diverse endogenous compounds such as steroids, bile, fatty acids, prostaglandins, leukotrienes, retinoids and lipids. Many of these enzymes also metabolise a wide range of xenobiotics including drugs, environmental compounds and pollutants. Their involvement in drug metabolism is extensive, it is estimated that 50% of all known drugs are affected in some way by the action of CYP450 enzymes. Significant resource is employed by the pharmaceutical industry to optimise drug candidates in order to avoid their detrimental interactions with the CYP450 enzymes. Another level of complication results from the fact that these enzymes exhibit different tissue distributions and polymorphisms between individuals and ethnic populations

Most mammalian P450s are located in the liver, but other organs and tissues have high concentrations of certain cytochrome P450s, including the intestinal wall, lung, kidney, adrenal cortex and nasal epithelium. Mammals have about 50 unique CYP450 genes and each family member is 45-55 KDa in size and contains a heme moiety that catalyses a two-electron activation of oxygen. The source of electrons may be used to classify CYP450s. Those that receive electrons in a three protein chain in which electrons flow from a flavin adenine dinucleotide (FAD) containing reductase, to an iron-sulphur protein, and then to P450 belong to the group of class I P450s, and include most of the bacterial enzymes. Class II P450s receive electrons from a reductase containing both FAD and flavin mononucleotide (FMN), and comprise the microsomal P450s that are the main culprits of drug metabolism. The mammalian microsomal cytochrome P450s are integral membrane proteins anchored by an N-terminal transmembrane spanning α -helix. They are inserted in the membrane of the endoplasmic reticulum by a short, highly hydrophobic N-terminal segment that acts as a non-cleavable signal sequence for insertion into the membrane. The remainder of the mammalian cytochrome P450 protein is a globular structure that protrudes into the cytoplasmic space. Hence, the bulk of the enzyme faces the cytoplasmic surface of the lipid bilayer. P450s require other membranous enzymatic components for activity including the flavoprotein NADPH-cytochrome P450 oxidoreductase and, in some cases, cytochrome b5. A single cytochrome P450 oxidoreductase supports the activity of all the mammalian microsomal enzymes by interacting directly with the

P450s and transferring the required two electrons from NADPH. Cytochrome P450s are able to incorporate one of the two oxygen atoms of an O₂ molecule into a broad variety of substrates with concomitant reduction of the other oxygen atom by two electrons to H₂O. Cytochrome P450 are known to catalyse hydroxylations, epoxidation, N-, S-, and O-dealkylations, N-oxidations, sulfoxidations, dehalogenations, and other reactions.

The genes of the P450 superfamily have been categorized by Nelson *et al* (Pharmacogenetics, 6; 1-42, 1996) who proposed a systematic nomenclature for the family members. This nomenclature is used widely in the art, and is adopted herein. Nelson *et al* provide cross-references to sequence database entries for P450 sequences.

Homo sapiens has 17 cytochrome P450 gene families and 42 subfamilies that total more than 50 sequenced isoforms. Cytochrome P450s from families 1, 2 and 3 constitute the major pathways for drug metabolism. Many drugs rely on hepatic metabolism by cytochrome P450s for clearance from the circulation and for pharmacological inactivation. Conversely, some drugs have to be converted in the body to their pharmacologically active metabolites by P450s. Many promising lead compounds are terminated in the development phase due to their interaction with one or more P450s. One of the greatest problems in drug discovery is the prediction of the role of cytochrome P450s on the metabolism or modification of drug leads. Early detection of metabolic problems associated with a chemical lead series is of paramount importance for the pharmaceutical industry. Obtaining crystal structures of the main human drug metabolising cytochrome P450s would be highly valuable for drug design, as this would provide detailed information on how P450 enzymes recognize drug molecules and the mode of drug binding. This in turn would allow drug companies to develop strategies to modify metabolic clearance and decrease the attrition rates of compounds in development.

The major human CYP450 isoforms involved in drug metabolism are CYP1A2, CYP2C9, CYP2C19, CYP2D6 and CYP3A4. The level of sequence identity between these family members ranges from about 20-80%, with much of the variability within the residues involved in substrate recognition. CYP450 enzymes are also present in bacteria and much of the understanding of substrate recognition is derived from crystal structures obtained of bacterial CYP450 enzymes.

It is well-known in the art of protein chemistry, that crystallising a protein is a chancy and difficult process without any clear expectation of success. It is now evident that protein crystallization is the main hurdle in protein structure determination. For this reason, protein crystallization has become a research subject in and of itself, and is not simply an extension of the protein crystallographer's laboratory. There are many references which describe the difficulties associated with growing protein crystals. For example, Kierzek, A.M. and Zielenkiewicz, P., (2001), Biophysical Chemistry, 91, 1-20, *Models of protein crystal growth*,

and Wiencek, J.M. (1999) *Annu. Rev. Biomed. Eng.*, 1, 505-534, *New Strategies for crystal growth*.

5 It is commonly held that crystallization of protein molecules from solution is the major obstacle in the process of determining protein structures. The reasons for this are many; proteins are complex molecules, and the delicate balance involving specific and non-specific interactions with other protein molecules and small molecules in solution, is difficult to predict.

Each protein crystallizes under a unique set of conditions, which cannot be predicted in advance.
10 Simply supersaturating the protein to bring it out of solution may not work, the result would, in most cases, be an amorphous precipitate. Many precipitating agents are used, common ones are different salts, and polyethylene glycols, but others are known. In addition, additives such as metals and detergents can be added to modulate the behaviour of the protein in solution. Many kits are available (e.g. from Hampton Research), which attempt to cover as many parameters in
15 crystallization space as possible, but in many cases these are just a starting point to optimise crystalline precipitates and crystals which are unsuitable for diffraction analysis. Successful crystallization is aided by a knowledge of the proteins behaviour in terms of solubility, dependence on metal ions for correct folding or activity, interactions with other molecules and any other information that is available. Even so, crystallization of proteins is often regarded as a
20 time-consuming process, whereby subsequent experiments build on observations of past trials.

In cases where protein crystals are obtained, these are not necessarily always suitable for diffraction analysis; they may be limited in resolution, and it may subsequently be difficult to improve them to the point at which they will diffract to the resolution required for analysis.
25 Limited resolution in a crystal can be due to several things. It may be due to intrinsic mobility of the protein within the crystal, which can be difficult to overcome, even with other crystal forms. It may be due to high solvent content within the crystal, which consequently results in weak scattering. Alternatively, it could be due to defects within the crystal lattice which mean that the diffracted x-rays will not be completely in phase from unit to unit within the lattice.
30 Any one of these or a combination of these could mean that the crystals are not suitable for structure determination.

Some proteins never crystallize, and after a reasonable attempt it is necessary to examine the protein itself and consider whether it is possible to make individual domains, different N or C-
35 terminal truncations, or point mutations. It is often hard to predict how a protein could be re-engineered in such a manner as to improve crystallisability. Our understanding of crystallisation mechanisms are still incomplete and the factors of protein structure which are involved in crystallisation are poorly understood.

- As of 2000, eight cytochrome P450 structures have been solved by X-ray crystallography and are available in the public domain. All of the cytochrome P450s, whose structures have been solved, were expressed in *E. coli*. Six structures correspond to bacterial cytochrome P450s: P450cam (CYP101 Poulos *et al.*, 1985, *J. Biol. Chem.*, 260, 16122), the heme protein domain of P450BM3 (CYP102, Ravichandran *et al.*, 1993, *Science*, 261, 731), P450terp (CYP108, Hasemann *et al.*, 1994, *J. Mol. Biol.* 236, 1169), P450eryF (CYP107A1, Cupp-Vickery and Poulos, 1995, *Nature Struct. Biol.* 2, 144), P450 14 α -sterol demethylase (CYP51, Podust *et al.*, 2001, *Proc. Natl. Acad. Sci. USA*, 98, 3068) and the crystal structure of a thermophilic cytochrome P450 (CYP119) from Archaeon *Sulfolobus solfataricus* was solved (Yano *et al.*, 2000, *J. Biol. Chem.* 275, 31086). The structure of cytochrome P450nor was obtained from the denitrifying fungus *Fusarium oxysporum* (Shimizu *et al.* 2000, *J. Inorg. Biochem.* 81, 191). The eighth structure is that of the rabbit 2C5 isoform, the first and only structure of a mammalian cytochrome P450 (Williams *et al.* 2000, *Mol. Cell.* 5, 121).
- 15 The reason why the mammalian cytochrome P450s have been particularly difficult to crystallize, compared to their bacterial counterparts, resides in the nature of these proteins. The bacterial cytochrome P450s are soluble whereas the mammalian P450s are membrane-associated proteins. Thus, structural studies on mammalian cytochrome P450s may use the combination of heterologous expression systems that allow expression of single cytochrome P450s at high
- 20 concentration with modification of their sequences to improve the solubility and the behaviour of these proteins in solution.
- Due to significant sequence differences from both the bacterial proteins and rabbit proteins, to fully understand the role of the human CYP450 enzymes in drug metabolism, the crystal
- 25 structures of human isoforms are still required.

Ibeanu *et al.*, (1996), *J Biol Chem*, Vol. 271, 12496-12501 describe the production of modified 2C9 proteins in yeast in which certain residues, including Ser 220 and Pro 221, were altered. These altered proteins were found to exhibit 2C19-like activity for omeprazole. The proteins

30 retained wild-type N-terminal sequence.

Disclosure of the Invention.

A nomenclature has been adopted to describe the secondary structure observed in cytochromes P450. The authors of the first structure of a P450, P450cam denoted the 12 helical segments A

35 through L from the N-terminal to C-terminal direction and this naming has been continued as more structures have been determined. In addition, some P450 structures have shown more helices, for example the description of P450 BM3 details 15 helices (A, B, B', C, D, E, F, G, H, I, J, J', K, K', L), where the additional helices are indicated by the ' symbol.

Each helix is typically 6 amino acids (Helix H in 2C5) to 32 amino acids (Helix I in BM3) in length. The helices are linked by β -strands, short linkers and long flexible loops of up to 30 amino acids in length.

- 5 Among these flexible structures, one of the most pronounced is the loop between the F and G helices ("the F-G loop"). This loop is probably involved in the substrate access channel, and could move to accommodate the substrate in the active site. This loop has also been described as participating, with the N-terminus domain, to the anchorage of the cytochrome P450s to the membrane.

10

In the 2C5 structure (PDB ID 1DT6) helix F ends at residue 206 and helix G starts at residue 228, therefore the loop between is residues 207 to 227 (definitions from the secondary structure assignment program DSSP (Kabsch and Sander, Biopolymers 22 (1983) 2577-2637)). Of these 21 residues, 12 cannot be seen in the 2C5 structure. This is an indication of its flexible nature.

- 15 We predict it will be similar in the rest of the 2C family and in other human P450s. The region is thought to be involved in membrane association of the enzyme in vivo, and orientation of the substrate access channels.

- Using the models we have developed, we predicted the F-G loop in 2C9 was from Leu208 to Pro227. This region contains 20 residues, 11 of which can be classified as hydrophobic, further supporting the hypothesis that this region may be embedded in membranes or involved in aggregation as has been suggested. From the 2C9 structure of the invention, (definitions from DSSP), the loop between helices F and G actually starts at 209 and ends at 227.

- 25 The invention provides modified human 2C9 P450 proteins as described herein, and nucleic acid encoding such proteins, as well as the use of the nucleic acids in making the proteins.

The invention further provides methods for the production and purification of the 2C9 P450 proteins of the invention.

30

The invention also provides crystals of the modified 2C9 P450 proteins of the invention.

The present invention further relates to the crystal structure of human CYP450 2C9, which allows the binding location of the substrates in the enzyme to be investigated and determined.

35

In general aspects, the present invention is concerned with the provision of a P450 structure and its use in modelling the interaction of molecular structures, e.g. potential pharmaceutical compounds, with this structure.

The above aspects of the invention, both singly and in combination, all contribute to features of the invention which are advantageous.

Description of the Drawings

5 Figure 1 sets out Table 1, providing the coordinates of a 2C9 structure,

Figure 2 sets out Table 2, providing the coordinates of a 2C9-FGloop K206E structure,

Figure 3 sets out Table 3, providing the coordinates of a 2C9-FGloop structure, and

10

Figure 4 sets out Table 7, providing modelled coordinates of residues 215, 216, 220, 221, 222, and 223 of a 2C9 wild type protein.

Figure 5 sets out Table 8, providing a refined structure of 2C9-FGloop K206E.

15

Figure 6 sets out Table 11, showing conditions in which crystals of proteins of the invention were obtained.

Figure 7 sets out Table 18, showing a homology model of 2C19.

20

Figure 8 sets out Table 19, showing 2C18 replacement coordinates.

Figure 9 sets out Table 20, showing 2C8 replacement coordinates.

25 Figure 10 shows the sequence alignment of the N-terminal truncated 2C9 variants and 2C9trunc with the published 2C9 wild type sequence (Meehan et al. 1988, *Am. J. Hum. Genet.* 42, 26).

Figure 11 shows data from 4-diclofenac hydroxylase assays.

30 Description of Tables.

Table 1 (see Fig. 1) provides the coordinates of the 2C9 structure obtained in Example 9.

Table 2 (see Fig. 2) provides the coordinates of the 2C9-FGloop K206E structure obtained in Example 11.

Table 3 (see Fig. 3) provides the coordinates of 2C9-FGloop obtained in Example 12.

35 Table 4 (Example 13) lists residues that line the binding site of 2C9.

Table 5 (Example 13) lists residues previously inferred to be in the binding site.

Table 6 (Example 13) lists newly identified binding pocket residues.

Table 7 (see Fig. 4) provides modelled coordinates of residues 215, 216, 220, 221, 222, and 223 of a 2C9 wild type protein.

Table 8 (Example 16 and Figure 5) is a refined 2C9-FGloop K206E structure.

Table 9 (Example 17) describes further 2C9 proteins of the invention and the primers and methods used to obtain them.

Table 10 (Example 17) describes control 2C9 proteins and the primers and methods used to obtain them.

Table 11 (Examples 20 and 24, and Figure 6) shows crystallisation conditions for proteins of the invention.

Table 12 (Example 18) sets out mass spectrometry data for 2C9 proteins.

Table 13 (Example 19) shows activity data for 2C9 proteins of the invention.

Table 14 (Example 21) shows 2C9-2C19 chimeras of the invention and the primers and/or methods used to obtain them.

Table 15 (Example 22) sets out mass spectrometry data for 2C9-2C19 chimeric proteins.

Table 16 (Example 23) shows activity of 2C9-FGloop K206E (1155).

Table 17 (Example 24) shows activity of 2C9-2C19 chimeras of the invention.

Table 18 (Example 25 and Figure 7) sets out a homology model of 2C19.

Table 19 (Example 26 and Figure 8) shows 2C18 replacement coordinates.

Table 20 (Example 27 and Figure 9) shows 2C8 replacement coordinates.

Description of sequences.

SEQ ID NO:1 is DNA sequence of 2C9trunc.

SEQ ID NO:2 is the amino acid sequence of 2C9trunc.

SEQ ID NO:3 is the DNA sequence of 2C9-P220 (also referred to as 1072).

SEQ ID NO:4 is the amino acid sequence of 2C9-P220.

SEQ ID NO:5 is the DNA sequence of 2C9-FGloop (also referred to as 1015).

SEQ ID NO:6 is the amino acid sequence of 2C9-FGloop.

SEQ ID NO:7 is the DNA sequence of 2C9-FGloop K206E (also referred to as 1155).

SEQ ID NO:8 is the amino acid sequence of 2C9-FGloop K206E.

SEQ ID NOs:(2x+7) and (2x+8) where x is an integer from 1 to 49 are the DNA and amino acid sequences, respectively, of the 2C9 proteins referred to as clones 1078, 1081, 1082, 1085, 1097,

1100, 1101, 1102, 1115, 1116, 1117, 1118, 1121, 1122, 1123, 1165, 1220, 1319, 1339, 1340, 1361, 1362, 1363, 1364, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1391, 1392, 1394, 1396, 1397, 1424, 1443, 1444, 1475, 1477, 1491, 1595, 1600, 1610, 1632, 1661, 1662 and 1664

respectively. Thus the DNA sequence encoding clone 1078 is SEQ ID NO:9 and its corresponding amino acid sequence is SEQ ID NO:10, and for clone 1664 the DNA is SEQ ID

NO:105 and the corresponding amino acid sequence is SEQ ID NO:106.

SEQ ID NO:107 is the DNA sequence of clone 1039 (control clone).

SEQ ID NO:108 is the amino acid sequence of clone 1039.

SEQ ID NO:109 is the DNA sequence of clone 1365 (control clone).

SEQ ID NO:110 is the amino acid sequence of clone 1365.

SEQ ID NO:111 is the DNA sequence of clone 1423 (control clone).

SEQ ID NO:112 is the amino acid sequence of clone 1423.

Further sequences are identified in the accompanying text.

Detailed Description of the Invention.

5 A. 2C9 Proteins and their Production.

The sequence of 2C9 is available in the art, for example from a number of database sources cited in Nelson et al, 1996, *ibid*. This includes the SwissProt database, in which 2C9 is entry number P11712.

- 10 The 2C9 P450 protein is desirably truncated in its N-terminal region to delete the hydrophobic trans-membrane domain, and the region replaced by a short (e.g. 8 to 12 amino acid sequence containing one or more (e.g. 3, 4 or 5) positively charged amino acids. For expression of the human 2C9 P450, we have used an N-terminal sequence MAKKTSSKGR (SEQ ID NO:114) in place of the N-terminal 29 amino acid residues, which increases expression of the proteins in *E.*
- 15 *coli* and increases solubility.

The 2C9 P450 may optionally comprise a tag, such as a C-terminal polyhistidine tag to allow for recovery and purification of the protein.

- 20 We have found that the position of the proline residue in the F-G loop appears to play a significant role in the formation of a P450 crystal. In particular, the presence of a proline at position 220 or 222 in 2C9 appears to be important for crystallisation to occur.

- In 2C9 wild type there is a proline residue at position 221. Moving it to position 220, by
- 25 substituting position 220 by proline and removing the Pro221 (by substitution by any other residue, but preferably alanine or threonine) in 2C9 promotes crystallisation. Alternatively the proline may be moved to position 222, with position 221 likewise being substituted.

- In 2C9 we have made the changes to positions 220 and 221 with and without other changes.
- 30 Where other changes were made, these were I215V, C216Y, I222L and I223L, although it is not essential that any or all of these be made to provide for crystallisation.

- Our experiments have been based on the use of a particular N-terminal truncation of 2C9, as set out in SEQ ID NO:2 and shown in Figure 10. This protein also comprises a polyhistidine tag at
- 35 the C-terminus. The N-terminal truncation and tag are both features which can be varied by those of skill in the art using routine skill. For example, alternative N-terminal sequence might be utilised, for example for production in host cells other than *E. coli*. Likewise, other tags may be used for purification of the protein as described below. These N- and C-terminal

modification may be made to a 2C9 protein which retains the core sequence of residues 31-490 of the wild type sequence illustrated in Figure 10.

The present invention provides a P450 2C9 protein which comprises the following changes:

- 5 position 220 or position 222 is proline; and
 optionally up to 30, for example up to 25, for example up to 10, for example up to 5
 other positions are altered,
 the positions 220 and 222 being numbered according to wild type 2C9. This numbering
 is shown in Figure 10.

10

Preferably the change is to position 220.

- It will be appreciated from the discussion above that by 2C9 protein, it is meant a protein
comprising residues 31 to 490 of the wild type sequence, optionally with N- and/or C-terminal
15 sequences provided to facilitate expression and recovery of the protein.

- Where present, the N-terminal sequence is preferably not the wild-type sequence. Preferably, it
is shorter than the wild type sequence (which is 30 amino acids). Preferably, the N-terminal
region joined to residue 31 is the truncation illustrated in the accompanying examples, i.e. SEQ
20 ID NO:114 plus a proline residue between it and residue 31 (also proline). This type of N-
terminal sequence reduces the tendency of 2C9 to anchor to membranes and to aggregate
compared to the wild type sequence.

- Where present, the C-terminal sequence is preferably no larger than 30, and preferably no larger
25 than 10 amino acids in size.

- In a preferred aspect, one of the up to 30 changes is to the position 221, such that it is not
proline. However this is not essential as it is shown herein (clone 1078) that crystals can be
obtained with proline at position 221 as long as one of the changes made above is also included.

30

A particular advantage of the proteins of the invention is that they are crystallisable. That is, we
have found that we have been able to form crystals which diffract X-rays, and thus we have
been able to analyse these crystals to provide structural coordinate data at a resolution of 3.1 Å or
better.

35

A further advantageous feature of the invention is that we have been able to obtain crystals of a
P450 protein in the absence of a ligand. Such crystals are useful for screening ligands with a
view towards determining co-complex structures. Determining the molecular structure of 2C9
can also be used in computer-based in silico ligand screening.

40

We have also shown additional changes to the 2C9 wild type sequence in addition to the changes at any of 220-222 may be introduced. A number of specific changes are illustrated in the clones of 2C9 set out in the accompanying examples. These include:

- 5 - changes to the FG loop region. A number of clones have such changes, including the clone 2C9-FGloop (3 changes), clone 1363 (3 changes), clones 1361, 1362, 1364 1369 (2 changes), and clones 1366, 1371 (1 change).
- changes to the surface region of 2C9. Such changes are illustrated herein by clone 1123
10 (3 changes), clones 1102, 1340, 1397, 1443 (2 changes), and clones 1081, 1082, 1085, 1097, 1100, 1101, 1115, 1116, 1117, 1118, 1121, 1122, 1165, 1339, 1391, 1392, 1394, 1396 (1 change). These surface changes may be in addition to the FG loop changes.
- up to 20 changes in total on top of changes to positions 220 and 221; e.g. clone 1595 (20
15 changes), 1600 (13), and 1632 (11).

Thus clone 1595 has 22 changes from wild type in total- 6 in FG loop (including 220, 221), 3 in active site, 12 on the surface. Of these 9 are conserved changes and 13 are non-conserved.

- 20 Our data illustrate that a variety of other positions in addition to the specific 220 or 222 changes may be made while still providing a protein which can be crystallised.

In one aspect, the changes which may be introduced are changes which introduce residues found in the corresponding position in another cytochrome P450 molecule. The corresponding
25 position may be found by alignment of the other P450 molecule with the sequence of 2C9 wild type to maximise homology between the two. The changes may be particularly from another cytochrome P450 molecule selected from the group consisting of 2C19, 2C18 and 2C8. Example 21 below sets out the production of proteins in which residues from 2C19 are substituted into the 2C9 sequence.

30

Examples 25 to 27 illustrate homology modelling of the proteins 2C19, 2C18 and 2C8 respectively. The Tables accompanying these examples may be used to identify the residues of these proteins which may be substituted into 2C9.

- 35 In another aspect, the invention provides a protein which is selected from the group consisting of SEQ ID NO:(2x+2), wherein x is an integer from 1 to 52. These proteins all share the common feature of the introduction of a proline residue at position 220 or 222 which facilitates crystallisation of 2C9.

Expression and Recovery of P450

The 2C9 P450 proteins of the invention are produced by recombinant DNA techniques. The nucleic acid sequences which encode wild type P450 proteins are available in the art, and the person of skill in the art may use routine methodology, e.g. site-directed mutagenesis, to
5 introduce coding changes into the nucleic acid sequences so as to provide nucleic acids encoding the P450s of the invention.

Thus in another aspect, the invention provides an isolated nucleic acid encoding a 2C9 P450 protein of the invention. Nucleic acid includes DNA (including both genomic and cDNA) and
10 RNA. Nucleic acid of the invention may be single or double stranded polynucleotides.

Nucleic acids of the invention can be incorporated into a recombinant replicable vector. The vector may be used to replicate the nucleic acid in a compatible host cell. Thus in a further embodiment, the invention provides a method of making nucleic acids of the invention by
15 introducing a nucleic acid of the invention into a replicable vector, introducing the vector into a compatible host cell, and growing the host cell under conditions which bring about replication of the vector. The vector may be recovered from the host cell.

Preferably, a nucleic acid of the invention in a vector is operably linked to a control sequence which is capable of providing for the expression of the coding sequence by the host cell, i.e. the
20 vector is an expression vector.

The term "operably linked" refers to a juxtaposition wherein the components described are in a relationship permitting them to function in their intended manner. A control sequence "operably
25 linked" to a coding sequence is ligated in such a way that expression of the coding sequence is achieved under condition compatible with the control sequences.

Suitable vectors can be chosen or constructed, containing appropriate regulatory sequences, including promoter sequences, terminator fragments, polyadenylation sequences, enhancer
30 sequences, marker genes and other sequences as appropriate. Vectors may be plasmids, viral e.g. 'phage phagemid or baculoviral, cosmids, YACs, BACs, or PACs as appropriate.

The vectors may be provided with an origin of replication, optionally a promoter for the expression of the said polynucleotide and optionally a regulator of the promoter. The vectors
35 may contain one or more selectable marker genes, for example an ampicillin resistance gene in the case of a bacterial plasmid or a neomycin resistance gene for a mammalian vector. Vectors may be used *in vitro*, for example for the production of RNA or used to transfect or transform a host cell. Systems for cloning and expression of a polypeptide in a variety of different host cells are well known.

Promoters and other expression regulation signals may be selected to be compatible with the host cell for which the expression vector is designed. For example, bacterial promoters include the lacZ promoter, yeast promoters include *S. cerevisiae* GAL4 and ADH promoters, *S. pombe* nmt1 and adh promoter, and mammalian promoters include the metallothionein promoter, the
5 SV40 large T antigen promoter or adenovirus promoters.

For further details see, for example, Molecular Cloning: a Laboratory Manual: 3rd edition, Sambrook et al., 2001, Cold Spring Harbor Laboratory Press. Many known techniques and protocols for manipulation of nucleic acid, for example in preparation of nucleic acid constructs,
10 mutagenesis, sequencing, introduction of DNA into cells and gene expression, and analysis of proteins, are described in detail in Current Protocols in Molecular Biology, Ausubel et al. eds., John Wiley & Sons, 1992.

A further embodiment of the invention provides host cells transformed or transfected with the
15 vectors for the replication and expression of nucleic acids of the invention. The cells will be chosen to be compatible with the said vector and may for example be bacterial, yeast, insect or mammalian.

The 2C9 P450 proteins of the invention may be expressed in any suitable host cell, which a
20 person of skill in the art wishes to use as a matter of experimental convenience. Cytochrome P450 molecules have been widely expressed in *E. coli*, and there are numerous vector systems for this host cell which may be used.

Other host cells include yeast, e.g. *S. cerevisiae*, insect or mammalian, e.g. CHO, cells.
25 Expression systems for these and many other host cell types are widely available in the art.

Host cells may be constructed so that the 2C9 P450 is expressed constitutively, or is induced.

Once the cells have been cultured to express 2C9 P450, they may be recovered by standard
30 techniques available in the art. A convenient means is to recover the cells by low-speed centrifugation such that the cells are pelleted intact.

The process of the present invention is suitable for batch cell culture, and batches of cells from 100 ml to several, e.g. 10 litres can be conveniently handled by current laboratory equipment,
35 though larger batches, e.g. 10 to 100 litres, are not excluded.

This invention also provides a method for expression and recovery of the 2C9 human cytochrome P450s of the invention from host cells. This method comprises:

(a) expressing in a host cell culture said cytochrome 2C9 P450 molecule;

- (b) recovering said cells from said culture and suspending said cells in salt buffer having a conductivity of from 12 to 110 mS/cm;
- (c) lysing said cells and removing cell debris to provide a high-salt lysate;
- (d) adding detergent to said lysate (for example 0.015% to 1.2% v/v) to provide a high-salt-detergent lysate;
- 5 (e) recovering said P450 from said lysate.

In a preferred embodiment, the method comprises:

- (a) expressing in *E. coli* said cytochrome 2C9 P450 molecule;
- 10 (b) recovering said cells and suspending them in a 200 mM to 1000 mM salt buffer;
- (c) lysing said cells and removing cell debris to provide a high-salt lysate;
- (d) adding detergent to said lysate (for example 0.015% to 1.2% v/v) to provide a high-salt-detergent lysate;
- (e) recovering said P450 from said lysate.

15

The recovery step involves affinity purification of the 2C9 P450 from the high salt-detergent lysate, since the presence of the high salt rules out the alternative of an ionic exchange purification step.

- 20 However, once the P450 has been purified by affinity chromatography, the salt must be removed in order to allow further purification of the product so that crystallization can be performed. In the prior art, salt removal is typically performed by dialysis. However, we have found that this process, which removes salt gradually over a period of several hours, causes aggregation and denaturation of the P450s and thus is undesirable. We have found that rapid desalting alleviates
- 25 this problem to a significant degree.

Thus in a further aspect, step (e) above may be performed by:

- (e(i)) binding said 2C9 P450 to an affinity support;
- (e(ii)) rinsing said support in a high-salt-detergent wash;
- 30 (e(iii)) removing said 2C9 P450 in a high-salt-detergent buffer to provide a P450-high-salt-detergent preparation; and
- (f) exchanging the buffer to a low ionic strength buffer without detergent by size-exclusion chromatography to provide a P450-low-salt preparation.

- 35 The above steps e(i)-(iii) maintain the 2C9 P450 in a high-salt and detergent buffer throughout the initial stages of the purification process, which aids the recovery of the P450.

- The preparation may be subject to additional purification and cleaning procedures, such as cation exchange chromatography, optionally followed by further size-exclusion chromatography
- 40 or hydrophobic interaction chromatography to obtain a more purified preparation of protein.

Salt buffer

This is buffer with a high ionic strength which is used to suspend the cells. It is a buffer comprising a salt which is readily soluble to provide a buffer having a conductivity of from 12 to 110 mS/cm. Such a buffer is desirably a salt having a concentration in the 200 – 1000 mM range. Preferably the salt is a potassium or sodium salt of an anion. Desirably the anion may be chloride or phosphate. Potassium phosphate (KPi) is particularly preferred.

A preferred salt concentration is selected to provide a conductivity of 25 to 35 mS/cm, for example about 30 mS/cm. A particularly preferred salt concentration is around 500 mM, e.g. 500 + 50 mM.

The buffer will be maintained at a pH range of from 6.5 to 8.0, preferably from 7.0 to 7.6. The buffer may contain other reagents used conventionally in the art for protein purification, such as glycerol, β -mercaptoethanol, DNase, pH buffering agents, histidine, imidazole and protease inhibitors.

Cell lysis

Cells may be lysed by physical means, such as sonication or in a French press or continuous flow cell disruptor, such that the cell walls are broken and the contents of the cells dispersed in the salt buffer. To achieve this in a French press, this may be operated at 10,000 to 20,000 psi.

Cell debris is removed (for example by low-speed centrifugation at about 10,000 – 25,000 g (e.g. about 22,000 g or a short high speed centrifugation to 70000 g; i.e. such that any whole cells are pelleted but not the membrane fraction). The debris (e.g. pelleted cells) may be subject to a further round of lysis, and the debris-free lysate from this further round combined with the lysate obtained previously.

The lysate is then ready to use directly in the next stage of the process, without the need to isolate a membrane fraction by ultracentrifugation.

Use of detergent

Once the lysate has been obtained, it is desirable that the detergent be added to the lysate as soon as possible, taking account of the constraints of the experimental set up. This will mean that the detergent is added to the lysate within 1 hour, preferably within 30 minutes or less of the preparation of the debris-free lysate.

The detergents that may be used are those conventionally used in the art of molecular and cell biology for the recovery and processing of biological materials. A large number of different types of detergents are available for this purpose. Many of these detergents are those of a

molecular weight range of from about 350 to 1000, such as from 400 to 800. They include anionic surfactants such as cholic acid or salts thereof (e.g. the sodium salt) and deoxycholic acid or salts thereof (e.g. the sodium salt) as well as zwitterionic surfactants such as CHAPS (3-[(3-cholamidopropyl)dimethylammonio]-1-propane sulphonate).

5

A particularly preferred class of detergents are non-ionic detergents. There are a wide variety of non-ionic detergents available in the art. Non-ionic detergents include octyl- β -D-glucopyranoside and ethers, such as C2-10 alkylphenol ethers, of polyethylene glycol. Such compounds may be of a molecular weight range of 500 – 800 Da, and include Nonident™ P40, IGEPAL CA630, and Triton™ X-100, and the like, which are commercially available.

10

The detergent is added to provide a usual concentration of from 0.015% to 1.2% v/v of detergent in the lysate. The amount of detergent added is preferably in the range of 0.1 to 1.2%, more preferably about 0.2 to 0.4%, such as about 0.3%.

15

The detergent is added in a volume so that desirably, the concentration of salt or ionic strength does not decrease by more than 10%.

Recovery of Purified 2C9 P450

We have found that the above high-salt-detergent lysate prepared in accordance with the invention provides for the recovery of 2C9 P450 protein in reduced aggregation form at a level much higher than experienced to date in the art. As mentioned above, the presence of the high salt buffer rules out an immediate ionic exchange chromatography step, but affinity purification may be performed as the next step.

25

Affinity purification may take the form of providing an affinity support matrix in which a ligand for the 2C9 P450 is attached. The support may be a resin, a bead (e.g. glass or polymer such as polystyrene), a magnetic bead, or the like. Where the 2C9 P450 contains a tag, the ligand will be cognate to the tag, e.g. Ni-NTA for a histidine tag, biotin for a streptavidin tag, etc. The ligand may also be an antibody, either to an epitope tag such as an HA tag, or to an epitope of the 2C9 P450.

30

The lysate is brought into contact with the affinity support under conditions for the 2C9 P450 to bind to the support. After binding, the support is rinsed. The rinse buffer should be a high-salt-detergent buffer, which may be the same or different to the lysate buffer. Preferably it is the same. If different, it will still have concentrations of salt and detergent as specified above.

35

After rinsing, the 2C9 P450 is removed from the support. This may be done in batch or by packing the support into a column and eluting the 2C9 P450 using a high-salt-detergent buffer, which is modified to remove the 2C9 P450 from its ligand. For example, for Ni-NTA, the buffer

40

may contain histidine or imidazole at a sufficient excess concentration to displace the His tag of the 2C9 P450. Suitable competitors may be used for other types of tags.

Desalting

- 5 The ionic strength of the resulting P450 solution is lowered by a rapid desalting process. We have found that a size exclusion column may be used for this purpose, with a flow rate such that the 2C9 P450 is separated from the high salt concentration within 10-30, preferably within 10 minutes. The 2C9 P450 is loaded to the column and eluted through the column with a low salt buffer.

10

While not wishing to be bound by any one particular theory, we have observed that whereas gradual desalting by, for example, dialysis, leads to aggregation and denaturation of cytochrome 2C9 P450, the rapid desalting process reduces aggregation to a significant degree.

- 15 The low salt buffer is preferably a similar salt to the high salt buffer described above, e.g. a sodium or potassium salt such as a chloride or phosphate, with potassium phosphate again being preferred. By "low salt", it is meant less than 50 mM, preferably less than 20 mM, and preferably about 10 mM. At this stage, it is not necessary to maintain detergent in the buffer.

20 *Further purification*

- It is desirable that after the desalting step, the preparation is subject to further purification promptly, i.e. without storage or freezing of the sample. This can be achieved by applying the desalted eluate directly to a further purification column. If not, the eluate from the desalting process is collected and applied within 1 hour to the column. A number of techniques are known
25 as such in the art for the further purification or concentration of protein preparations, and examples of these are outlined in the accompanying examples. They include weak cation exchange columns, such as carboxymethyl-Sepharose™, BioRex™70, carboxymethyl-Biogel™, and the like, and strong cation exchange columns such as MonoS, which may be used to further remove detergent. For example, the desalted cytochrome P450 may be directly
30 applied to a CM Sepharose™ column (e.g. a 5 ml HiTrap column, Pharmacia), previously equilibrated with 10 mM KPi, pH 7.4, 20% glycerol, 0.2 – 2.0 mM DTT, 1 mM EDTA ("buffer 1"). The following step elution protocol may then be run on the AKTA FPLC system; wash with 10 - 20 column volumes of buffer 1 and then 10 – 20 column volumes of 10mM KPi, pH 7.4, 20% glycerol, 0.2 – 2.0 mM DTT, 1mM EDTA, 75 mM KCl or NaCl in order to remove any
35 trace of detergent. The P450 is then eluted with the above latter buffer with KCl or NaCl concentration increased to 500 mM.

- Optionally this is followed by a size exclusion column, e.g. Superose™, Superdex™, Sephacryl™, and the like. The protein recovered from either the cation exchange or size
40 exclusion step may be concentrated to provide a solution suitable for crystallisation or other use.

A concentration of from 20 to 120, e.g. 20 to 80 mg/ml may be achieved by the use of the present invention.

B. Crystallisation of 2C9 Proteins.

5 A number of methods are known as such in the art for obtaining protein crystals. Conveniently, the final protein is concentrated to 10-60, e.g. 20-40 mg/ml in 10-100 mM potassium phosphate with high salt (e.g. 500 mM NaCl or KCl) by using concentration devices that are commercially available. The protein may be concentrated in presence of 20% glycerol, 2.0 mM DTT and 1 mM EDTA.

10

The protein is crystallized by vapour diffusion at 5-25 °C against a range of buffer compositions. Crystals may be prepared using commercially available screening kits such as, Polyethylene glycol (PEG)/ion screens, PEG grid, Ammonium sulphate grid, PEG/ammonium sulphate grid or the like purchased from Hampton Research, Emerald Biostructure, Molecular Dimension and from others.

15

Typically the vapour diffusion buffer comprises 0 – 27.5%, preferably 2.5-27.5% PEG 1K-20 K, preferably 1-8K or PEG 2000MME-5000MME, preferably PEG 2000 MME, or 0-10% Jeffamine M-600 and/or 5-20%, e.g. 10-20% propanol or 15-20% ethanol or about 15%-30%, e.g. about 15% 2-methyl-2,4-pentanediol (MPD), optionally with 0.01 M –1.6 M salt or salts and/or 0-0.15, e.g. 0-0.1, M of a solution buffer and/or 0-35%, such as 0-15%, glycerol and/or 0-35% PEG300-400; but preferably:

20

10-25% PEG 1K-8K or PEG 2000MME or 0-10% Jeffamine M-600 and/or 5-15%, e.g. 10-15%, propanol or ethanol, optionally with 0.1 M –0.2 M salt or salts and/or 0-0.15, e.g. 0-0.1 M solution buffer and/or PEG400, but more preferably:

25

15-20% PEG 3350 or PEG 4000 or PEG 2000MME or 0-10% Jeffamine M-600 or 5-15%, e.g. 10-15% propanol or ethanol, optionally with 0.1 M –0.2 M salt or salts and/or 0-0.15 M solution buffer.

30

Specifically preferred crystallisation conditions for the 2C9 proteins described herein are:

0.05-0.1 M Tris-HCl pH 8.0-8.8, 0.1-0.2 M Lithium sulphate, 10-15% PEG 4000;

35

0.1 M Tris pH 8.0-8.8, 15-30% PEG 400, 5% PEG 8000, 10% glycerol; and

0.1-0.4 M KH_2PO_4 , 0-25 % PEG 3350, 0-10% glycerol.

The salt may be an alkali metal (particularly lithium, sodium and potassium), alkaline earth metal (e.g. magnesium or calcium), ammonium, ferric, ferrous or transition metal salt (e.g. zinc) of a halide (e.g. bromide, chloride or fluoride), acetate, formate, nitrate, sulphate, tartrate, citrate or phosphate. This includes sodium fluoride, potassium fluoride, ammonium fluoride, ammonium acetate, lithium acetate, magnesium acetate, sodium acetate, potassium acetate, calcium acetate, zinc acetate, ammonium chloride, lithium chloride, magnesium chloride, potassium chloride, sodium chloride, potassium bromide, magnesium formate, sodium formate, potassium formate, ammonium formate, ammonium nitrate, lithium nitrate, potassium nitrate, sodium nitrate, ammonium sulphate, potassium sulphate, lithium sulphate, sodium sulphate, disodium tartrate, potassium sodium tartrate, di-ammonium tartrate, potassium dihydrogen phosphate, tri-sodium citrate, tri-potassium citrate, zinc acetate, ferric chloride, calcium chloride, magnesium nitrate, magnesium sulphate, sodium dihydrogen phosphate, disodium hydrogen phosphate, dipotassium hydrogen phosphate, ammonium dihydrogen phosphate, di-ammonium hydrogen phosphate, tri-lithium citrate, nickel chloride, ammonium iodide, di-ammonium hydrogen citrate.

Solution buffers if present include, for example, Hepes, Tris, imidazole, cacodylate, tri-sodium citrate/citric acid, tri-sodium citrate/HCl, acetic acid/sodium acetate, phosphate-citrate, sodium potassium phosphate, 2-(N-morpholino)-ethane sulphonic acid/NaOH (MES), CHES, bis-trispropane, CAPS, potassium dihydrogen phosphate, sodium dihydrogen phosphate, dipotassium hydrogen phosphate or disodium hydrogen phosphate.

The pH range is desirably maintained at pH 4.2-10.5, preferably 4.2-8.5, more preferably 4.7-8.5 and most preferably 6.5-8.5.

Crystals may be prepared using a Hampton Research Screening kit, Poly-ethylene glycol (PEG)/ion screens, PEG grid, Ammonium sulphate grid, PEG/ammonium sulphate grid or the like.

Crystallisation may also be performed in the presence of an inhibitor or substrate of P450, e.g. fluoroxamine or 2-phenyl imidazole.

Additives can be added to a crystallisation condition identified to influence crystallisation. Additive Screens are to be used during the optimisation of preliminary crystallisation conditions where the presence of additives may assist in the crystallisation of the sample and the additives may improve the quality of the crystal e.g. Hampton additive Screens which use glycerol, polyols and other protein stabilizing agents in protein crystallisation (R. Sousa. Acta. Cryst. (1995) D51, 271-277) or divalent cations (Trakhanov, S. and Quiocho, F.A. Protein Science (1995) 4,9, 1914-1919).

C. Crystals

In a further aspect, the invention thus provides a crystal of human 2C9 P450 protein molecules, and a method of obtaining the crystal structure of a human 2C P450 molecule which comprises subjecting said crystal to X-rays, and analysing the diffraction pattern obtained to determine the
5 3-dimensional coordinates of the atoms of said 2C9 P450.

Thus the present invention provides a crystal of P450 having the trigonal space group P321, and unit cell dimensions 165.46 Å, 165.46 Å, 111.70 Å, 90°, 90°, 120°. The crystal contains two copies of 2C9 in an asymmetric unit, denominated at A and B in Tables 1, 2, 3 and 8. Unit cell
10 variability of 5% may be observed in all dimensions.

Such a crystal may be obtained using the methods described in the accompanying examples.

The crystal may be of a 2C9 protein which comprises the sequence of SEQ ID NO:2 other the
15 following changes:

position 220 or position 222 is proline; and

optionally up to 21, for example up to 10, for example up to 5 other positions are altered, the positions being numbered according to wild type 2C9, and include the sequences described herein in the accompanying examples.
20

The methodology used to provide a P450 crystal illustrated herein may be used generally to provide a human P450 crystal resolvable at a resolution of at least 3.1 Å and preferably at least 3 Å.

25 The invention thus further provides a crystal of a P450 protein described herein having a resolution of at least 3.1 Å and preferably at least 3 Å.

In a further aspect, the invention provides a method for making a protein crystal of a P450 protein described herein, which method comprises growing a crystal by vapour diffusion using a
30 reservoir buffer that contains a potassium salt and a PEG precipitate. The growing of the crystal is by vapour diffusion and is performed by placing an aliquot of the solution on a cover slip as a hanging drop above a well containing the reservoir buffer. Preferably the potassium salt is potassium phosphate, particularly 0.05 to 0.2 M potassium phosphate. The PEG precipitate concentration is preferably 10-30% PEG (more preferably 10-20% PEG). A higher weight PEG
35 in the range of PEG 2000 to PEG 4000 may be used. Preferably PEG 3350 is used. The aliquot contains protein solution and reservoir buffer, typically in a ratio of 1 part protein solution to 1 part reservoir buffer. The protein solution was 0.7 mM. Most preferably the reservoir buffer is 0.2 M dibasic potassium phosphate and 20% PEG 3350. Alternative crystallisation conditions comprise (i) 0-0.2 M Tris-HCl (pH 8-9.5, preferably pH 8.4-8.8), 0-20% PEG 400, 0-20% PEG
40 8000, 0-20% glycerol or (ii) 0-0.2 M Tris-HCl (pH 8-9), 0-0.25 M Li₂SO₄, 0-20% PEG 4000;

more particularly (iii) 0.1 M Tris-HCl (pH 8.8), 15% PEG 400, 5% PEG 8000, 10% glycerol, (iv) 0.1 M Tris-HCl (pH 8.5), 0.2 M Li₂SO₄, 15% PEG 4000 or (v) 0.1 M Tris-HCl (pH 8.4), 15% PEG 400, 5% PEG 8000, 10% glycerol. Condition (iv) is particularly preferred.

- 5 A total of 2648 crystallisation wells were set up to obtain a 3.0 Å dataset suitable for the solution of the first structure. A further 1584 wells were set up to achieve a crystal resolvable to 2.6 Å. This is an indication of the difficulty in obtaining crystals of suitable resolution for structure solution. The interpretation of the crystallisation screens and subsequent analysis of the results to determine which conditions to be set up, require significant experience.

10

Other crystals of the invention include crystals which have selected coordinates of the binding pocket, wherein the amino acid residues associated with those selected coordinates are located in a protein framework which holds these amino acids in a relative spatial configuration corresponding to the spatial configuration of those amino acids in Table 1, 2, 3 or 8. By

- 15 "corresponding to", it is meant within a r.m.s.d. of less than 2.0 Å, preferably less than 1.5 Å, more preferably less than 1.0 Å, even more preferably less than 0.64 Å and most preferably less than 0.5 Å. The amino acids which provide the selected coordinates are preferably selected from amino acids which form part of the binding pocket of P450, and include those of Table 5 or 6, or combinations thereof as defined further herein below.

20

Crystals of the invention also include crystals of 2C9 mutants and chimeras as defined further below in Sections F and G.

- The invention further provides a method of assessing the ability of a compound to interact with
25 P450 protein which comprises:
obtaining or synthesising said compound;
forming a crystallised complex of a P450 protein and said compound, said complex
diffracting X-rays for the determination of atomic coordinates of said complex to a resolution of
better than 3.1 Å and preferably at least 3 Å; and
30 analysing said complex by X-ray crystallography to determine the ability of said compound to
interact with the P450 protein.

D. Description of Structure.

- The analysis of the crystals obtained in the present invention has allowed a detailed analysis of
35 the structure of a human P450 molecule. Cytochrome P450 2C9 can be considered to be a two domain protein, with a smaller, predominantly beta strand domain and a larger, predominantly alpha helical domain, forming an overall triangular arrangement. All P450 structures solved to date have the same overall topology, leading to a nomenclature adopted by the literature to describe the individual alpha helices and beta strands within P450 structures (see Ravichandran
40 et al, Science, 1993, 261, 731-736 for definitions). The protein as purified consists of residues

19-494 (numbering from full length 2C9), and all but the first and last few of these residues are distinguishable in the electron density. The beta strand domain consists of beta sheets 1 and 2 and alpha helices A and B. These structural elements are formed by the N-terminal region of the polypeptide chain (residues 30-90) and residues between the helices K and K'. These residues, along with the loops between helices B and C, and helices F and G (herein referred to as the B-C and F-G loops), are implicated in the interaction of mammalian P450s with the membrane when the protein is in its native membranous form. These loops also confer some of the reaction specificity to individual P450s and are among the most divergent regions of sequence.

The alpha helical domain consists of helices C through L. The heme moiety is located between the alpha helical and the beta strand domains, and sits above helix I (residues 284-315). The single protein ligand to the heme, cysteine 435, is found in a loop prior to the last alpha helix. Given the range of compounds that P450s metabolise, the substrate binding pockets of these enzymes can accommodate a variety of shapes and sizes. Access to and from the heme group may be regulated by the position of the loops that form the substrate binding site, leading to open and closed conformations of the enzyme. Mutational and activity data has allowed the mapping of regions of sequence to function.

A total of six substrate recognition sites (SRS) have been proposed by Gotoh (Gotoh, J. Biol. Chem., 267 (1992), 83-90). Some of the residues that line the binding pocket of the 2C9 structure include residues within these predicted SRS and include several residues that have been linked to changes in both specificity and reaction rates within mutant forms of the protein. The regiospecific hydroxylation of warfarin has been linked to polymorphism at residue 359; which lies above and to one side of the heme group, while residue 114 which has been shown to change warfarin and diclofenac hydroxylation rates, lies above and to the other side of the heme group.

The structure of the present invention confirms that many of the residues inferred as potential SRS residues in the prior art by other methods (e.g. sequence alignment and mutagenesis) are found in the various SRSs seen in our structure. We have also identified many other residues which are likely to provide side chains capable of interacting with many P450 substrates. For example, our structure indicates a number of residues, particularly with hydrophobic side chains, are in the SRS regions.

In the embodiments of the invention described herein where selected coordinates of the P450 structure may be used, the coordinates may include some or all of these residues.

An overlay of the 2C5 and 2C9 structure indicates that while the gross features of the protein are largely conserved between the two proteins, there are some interesting differences. The first

resolvable residue in the electron density is residue 30 (all numbering is in relation to the full length protein), and the last residue is residue 490. Thus there are 10 residues without electron density at the N-terminus and the four histidine C-terminal tag is also not resolved.

5 Starting at the N-terminus, the two proteins adopt the same position at residue 48. Following the polypeptide chain back towards the N-terminus, the position of the two sequences is out of register by one, and towards the end, two residues, while the backbone trace of the two proteins is very close. The sequence identity in this region is particularly high, so such a difference seems somewhat surprising. It is probably attributable to the comparatively low resolution of
10 the 2C5 structure which made accurately assigning the sequence at the N-terminus difficult. The higher resolution of the 2C9 structure has made assigning the sequence in this region less ambiguous. Thus this structure of 2C9 may be more representative of the true conformation of the N-termini of both 2C5 and 2C9.

15 The first region in which the two proteins differ substantially is the region between the B and C helices (residues 99 to 111). The temperature factors of the chain between residues 99 and 109 for 2C5 are high (the average B factor for all atoms in this range is 99.1 \AA^2), implying much mobility in this region, and hence little confidence can be placed in their position. In contrast, the average B-factors for all atoms for residues 99 to 111 is 55.5 \AA^2 in 2C9.

20 In the 2C9 structure residues 101 to 106 have adopted a helical formation (helix B') that has been observed in bacterial P450 structures. These residues form part of SRS 1, and thus contribute to the active site of the P450. The electron density has allowed unambiguous interpretation of all side chain positions in this region. A notable feature in this region is Arg97,
25 which is proposed to be an important cation in the active site (2C9 substrate are predominantly acidic). The equivalent residue in 2C5 (Arg97) adopted a different conformation, and as a result did not form part of the active site. His99 has been implicated in omeprazole activity (Ibeanu et al., (1996), J Biol Chem, Vol. 271, 12496-12501); it is the only residue in SRS 1 not conserved between 2C9 and 2C19 (in 2C9 is it a Ile, in 2C19 a His), and mutation of this residue alone in
30 2C19 confers omeprazole activity to the resulting mutant protein. The 2C9 structure confirms that this residue forms part of the active site.

In the 2C9 structure the side chain position of Arg97 is clearly resolved, forming an interaction with the haem and Val113. Phe114 points into the active site and is well positioned to form pi-pi
35 stacking interactions with substrates as has been suggested by a number of groups. Phe110 is in close proximity, but not as exposed as Phe114.

Arg105 and Arg108, which have also been suggested as potentially contributing to a cation site within the active site, both point away from the cavity.

The next region of divergence between the 2C5 and 2C9 structures is the region between the F and G helices. Residues 212 to 222 inclusive, which form part of the F-G loop, were absent in the published 2C5 structure. These residues are well resolved in the 2C9 structure, and form two turns of helix (all secondary structure assignment done using the program DSSP (Kabsch and Sander, Biopolymers 22 (1983) 2577-2637). Residues 220 and 221, while not contributing to the active site, clearly do have some impact on the accessibility of the active site, by mediating the position of the F-G loop. One of the disadvantages of mapping regions of sequence involved in substrate contact is the inability to distinguish between those regions which directly contact substrates (by lining the active site) and those that mediate the interaction the substrate has with the P450 by regulating structural elements within the enzyme. The 2C9 structure will allow the distinction between direct and indirect impact of individual residues on substrate specificity and activity. The redesign of compounds to facilitate or remove interactions with 2C9 is clearly going to be simplified by this distinction.

The residues at positions 286 and 289 have been implicated in substrate specificity (Klose et al., (1998), Arch. Biochem. Biophys., Vol. 357, 240-248). Only residue 289 actually lines the active site, but both are in close proximity to Phe110 of the B-C loop, and hence their role in substrate specificity may be an indirect one via the packing of structural elements, rather than a direct one through substrate contact.

Helices H and I adopt the same spatial conformation in the two proteins; the loop between the two helices is three residues longer and is clearly resolved in the electron density.

Phe476 forms a hydrophobic patch in the active site along with Phe100, Leu102, Leu208, Leu362, and Leu366.

There are 4 other alleles of 2C9 which have currently been identified, which have an amino acid substitution. 2C9*2 has R144C, 2C9*3 I359L, 2C9*4 I359T and 2C9*5 D360E. Ile359 does not lie in the active site, but is close to Thr305 and Thr361. It is not easy to envisage a direct effect of this residue on ability to catalyse compounds, but as has been noted for other residues, a mutation here may cause the shift of structural elements, which will impact on the active site. A similar effect may be true for Asp360. Arg 144 does not form part of the binding pocket of 2C9. It has however been widely believed that the variation in drug metabolism properties exhibited by those individuals possessing the 2C9 R144C allele variation is due to a modified interaction between the P450 and the reductase. The peripheral location of this residue in the structure of 2C9 would support this argument.

Dimer Interface

The rotation angle between the two copies in the asymmetric unit is not 180°, and as a result the interface between the two copies (here referred to as A and B) is non-symmetrical. The

interface involves a number of hydrogen bonds between residues in helix D of molecule A and the G-H loop of molecule B, the G-H loop of molecule A and the C-terminus and helix D of molecule B, the C terminus of A and the G-H loop of molecule B.

5 **E. Crystal Coordinates.**

In a further aspect, the invention also provides a crystal of P450 having the three dimensional atomic coordinates of Table 1, 2, 3 or 8. An advantageous feature of the structure defined by the atomic coordinates is that it has a high resolution (about 3 Å for Table 1, about 2.6 Å for Table 2, about 3.1 Å for Table 3 and about 2.6 Å for Table 8).

10

Another advantageous feature of the invention is that it provides atomic coordinate data relating to the loop between helices F and G (the FG loop). The FG loop is one of the most divergent topological regions between the mammalian and bacterial P450 enzymes. As such, it is one of the more difficult parts of the mammalian enzymes to model when using a bacterial structure as a modelling template. The structure of P450BM3 (Ravichandran et al, 1993, *ibid*) has been widely used within the field as a structural template for modelling the human forms. P450BM3 has just twelve residues in the FG loop, as opposed to the 21 residues in the 2C isoforms. The only mammalian P450 structure in the public domain is that of the rabbit 2C5 isoform, solved by X-ray crystallography to a resolution of 3.0 Å (Williams et al, Mol Cell (2000), 5, 121-131).

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While the 2C5 structure does provide an improved modelling template when compared to the bacterial structures, the position of the FG loop was not resolvable in the crystal structure. In contrast, the 2C9 structure described here includes the FG loop. Residues within the FG loop have not been widely implicated in the substrate selectivity of P450s, and lie outside the substrate recognition sites (SRS's) identified by Gotoh (Gotoh, O, J. Biol. Chem, 267; 83-90 (1992)). Residues within the FG loop have been shown to modify the compound binding specificity of 2C9 (Tsao et al, Biochemistry (2001), 40, 1937-1944). It was not clear whether this effect was due to direct interaction of residues within the FG loop and the compound, or a secondary effect caused by the interaction of these residues with residues within the pocket that fall within the substrate recognition sites (SRS) of the enzymes. It is now evident from our structure that the residues of the FG loop do not contribute to the binding pocket. The structure of 2C9 will therefore more readily facilitate the identification of direct and indirect interactions between compounds and 2C9.

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Another advantageous feature is that the average B-factor of the 2C9 structure is 43.9 Å² in contrast to the 2C5 structure which had an overall B-factor of 58.6 Å², resulting in a better definition for most of the side chains within the structure. This is advantageous for all uses of the coordinates, especially *in silico* work, molecular replacement, and homology modelling.

40

A further advantage of the 2C9 structures described herein is that they are unliganded, apo structures. This makes them particularly suitable for soaking in ligands and hence determining

co-complex structures and, are also ideal for homology modelling purposes as there is no conformational bias from a ligand.

The BC and FG loops are among the most varied features of cytochromes P450. Both loops contribute to the enzymes catalytic cycle; the BC loop directly by providing residues that form part of the active site, and mediate specificity and activity interactions, and the FG loop by movement allowing substrate entry and exit. In this high resolution 2C9 structure both of these loops are well resolved, in contrast to the 2C5 structure.

Tables 1, 2, 3 and 8 give atomic coordinate data for P450 2C9. In Tables 1, 2, 3 and 8 the third column denotes the atom, the fourth the residue type, the fifth the chain identification (either A or B), the sixth the residue number (the atom numbering is with respect to the full length wild type protein), the seventh, eighth and ninth columns are the X, Y, Z coordinates respectively of the atom in question, the tenth column the occupancy of the atom, the eleventh the temperature factor of the atom, the twelfth (where present) the chain identification, and the last the atom type.

The coordinates of Tables 1, 2, 3 and 8 provide a measure of atomic location in Angstroms, to 3 decimal places. The coordinates are a relative set of positions that define a shape in three dimensions, but the skilled person would understand that an entirely different set of coordinates having a different origin and/or axes could define a similar or identical shape. Furthermore, the skilled person would understand that varying the relative atomic positions of the atoms of the structure so that the root mean square deviation of the residue backbone atoms (i.e. the nitrogen-carbon-carbon backbone atoms of the protein amino acid residues) is less than 2.0 Å, preferably less than 1.5 Å, more preferably less than 1.0 Å, even more preferably less than 0.64 Å and most preferably less than 0.5 Å when superimposed on the coordinates provided in Table 1, 2, 3 or 8 for the residue backbone atoms, will generally result in a structure which is substantially the same as the structure of Table 1, 2, 3 or 8 in terms of both its structural characteristics and usefulness for structure-based analysis of P450-interactivity molecular structures.

Likewise the skilled person would understand that changing the number and/or positions of the water molecules and/or substrate molecules of Table 1, 2, 3 or 8 will not generally affect the usefulness of the structure for structure-based analysis of P450-interacting structure. Thus for the purposes described herein as being aspects of the present invention, it is within the scope of the invention if: the Table 1, 2, 3 or 8 coordinates are transposed to a different origin and/or axes; the relative atomic positions of the atoms of the structure are varied so that the root mean square deviation of residue backbone atoms is less than 2.0 Å, preferably less than 1.5 Å, more preferably less than 1.0 Å, even more preferably less than 0.64 Å and most preferably less than 0.5 Å when superimposed on the coordinates provided in Table 1, 2, 3 or 8 for the residue

backbone atoms; and/or the number and/or positions of water molecules and/or substrate molecules is varied.

Reference herein to the coordinate data of Table 1, 2, 3 or 8 and the like thus includes the coordinate data in which one or more individual values of the Table are varied in this way. By “root mean square deviation” we mean the square root of the arithmetic mean of the squares of the deviations from the mean.

Thus, for example, varying the atomic positions of the atoms of the structure by up to about 0.5 Å, preferably up to about 0.3 Å in any direction will result in a structure which is substantially the same as the structure of Table 1, 2, 3 or 8 in terms of both its structural characteristics and utility e.g. for molecular structure-based analysis.

Those of skill in the art will appreciate that in many applications of the invention, it is not necessary to utilise all the coordinates of Table 1, 2, 3 or 8, but merely a portion of them. For example, as described below, in methods of modelling candidate compounds with P450, selected coordinates of 2C9 may be used.

By “selected coordinates” it is meant for example at least 5, preferably at least 10, more preferably at least 50 and even more preferably at least 100, for example at least 500 or at least 1000 atoms of the 2C9 structure. Likewise, the other applications of the invention described herein, including homology modelling and structure solution, and data storage and computer assisted manipulation of the coordinates, may also utilise all or a portion of the coordinates (i.e. selected coordinates) of Table 1, 2, 3 or 8. The selected coordinates may include or may consist of atoms found in the 2C9 P450 binding pocket, as described herein below.

F. Chimaeras

The use of chimaeric proteins to achieve desired properties is now common in the scientific literature. For example, Sieber et al (Nature Biotechnology (2001) 19, 456-460) produced hybrids between human cytochrome P450 isoform 1A2 and the bacterial P450 BM3, in order to make proteins with the specificity of 1A2, but which had desirable expression and solubility properties of BM3. Active site chimaeras are also described: for example, Swairjo et al (Biochemistry (1998) 37, 10928-10936) made loop chimaeras of HIV-1 and HIV-2 protease to try to understand determinants of inhibitor-binding specificity.

Of particular relevance are cases where the active site is modified so as to provide a surrogate system to obtain structural information. Thus Ikuta et al (J Biol Chem (2001) 276, 27548-27554) modified the active site of cdk2, for which they could obtain structural data, to resemble that of cdk4, for which no X-ray structure is currently available. In this way they were able to obtain protein/ligand structures from the chimaeric protein which were useful in cdk4 inhibitor

design. In a similar way, based on comparison of primary sequences of highly related isoforms (such as 2C19 or even 2D6), the active site of the 2C9 protein could be modified to resemble those isoforms. Protein structures or protein/ligand structures of the chimaeric proteins could be used in structure-based alteration of the metabolism of compounds which are substrates of that related P450 isoform.

Even if the percentage of the amino acid sequence identity between mammalian P450 ranks from 20 to 80%, the overall folding of mammalian P450s is expected to be very similar, with the same spatial distribution of the structural elements. Furthermore, this class of enzymes exhibits distinct substrate specificities that rely on only a limited number of residues located in non-contiguous parts of the polypeptide chain. The substrate-binding pocket of P450 is generally constituted by residues that fall in the SRS regions (substrate recognition sites) defined by Gotoh (Gotoh, O, J. Biol. Chem, 267; 83-90 (1992)) and in loops of the molecule.

Aspects of the present invention therefore relate to modification of P450 proteins such that the active sites mimic those of related isoforms. For example, from a knowledge of the structure and residues of the active site of the human 2C9 protein described herein, and that of the rabbit 2C5 protein published previously, a person skilled in the art could modify the 2C5 protein such that the active site mimicked that of human 2C9. This protein could then be used to obtain information on compound binding through the determination of protein/ligand complex structures using the chimaeric 2C5 protein.

For example, in one aspect the present invention provides a chimaeric protein having a binding cavity which provides a substrate specificity substantially identical to that of P450 2C9 protein, wherein the chimaeric protein binding cavity is lined by a plurality of atoms which correspond to selected P450 2C9 atoms lining the P450 2C9 binding cavity, the relative positions of the plurality of atoms corresponding to the relative positions, as defined by Table 1, 2, 3 or 8, of the selected P450 2C9 atoms.

It is possible to postulate that only few changes would be required to inter-convert the substrate specificities of P450 isoforms that exhibit more than 70% of amino acid identity. For example, 2C9 and 2C19, although they differ at only 43 of 490 amino acids, exhibits clear substrate specificity differences. Using a panel of 2C9/2C19 chimaeric proteins, Jung *et al.* (Jung, F. Biochemistry, 37, 16270-16279 (1998)), have identified the sequences differences that confer to 2C19 a high affinity binding to sulfaphenazole, a very potent and specific inhibitor of 2C9. Site directed mutagenesis experiments have revealed that the conversion of 2C19 to a 2C9-like protein was possible by introducing a limited number of substitutions in the 2C19 amino acid sequence. These mutations are located in the SRS3 and SRS4 regions of the proteins. Similar studies performed by Klose *et al.* (Arch. Biochem. Biophys. 357, 240-248 (1998)) and Tsao *et*

al. (Biochemistry, 40, 1937-1944, (2001)) have demonstrated the feasibility of the transfer of substrate specificities between 2C9 and 2C19 by mutating SRS regions.

5 The substrate specificity of an enzyme generally relies on only a limited number of residues located in non-contiguous parts of the polypeptide chain. The substrate specificities of these isoforms could be analysed by substituting these residues by site-directed mutagenesis. The minimal changes that would be required to convert another protein into a 2C9-like chimera could be at least two amino acids selected from Table 4. These mutations can be introduced by site-directed mutagenesis e.g. using a Stratagene QuikChange™ Site-Directed Mutagenesis Kit
10 or cassette mutagenesis methods (Ausubel, F.M., Brent, R., Kingston, R.E. et al. editors. Current Protocols in Molecular Biology. John Wiley & Sons, Inc., New York, Sambrook, J., Fritsch, E.F., and Maniatis, T. (1989). Molecular Cloning: a Laboratory Manual. 2nd ed. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY.). Thus the invention provides a chimaeric protein having one or more binding pockets defined by the residues of Table 4.

15 This strategy could clearly be applied for proteins that exhibit high sequence homology with or without overlapping substrate specificities and from different species. The rabbit 2C5 and the human 2C9 and 2C19 P450s have been reported to be involved in the metabolism of progesterone with different rates, the rabbit isoform being clearly the most efficient enzyme.
20 The use of the crystal structures solved for 2C5 and 2C9 would allow the characterization of the binding mode of the progesterone molecule in the substrate pocket of these proteins. This in turn would allow the identification of residues to be modified in the human isoforms to convert them into efficient progesterone metabolising enzymes.

25 In one embodiment, a chimaeric 2C9 enzyme is produced which is isoformal with another enzyme of the 2C subfamily. For example, 2C9 could be turned into a 2C19-like isoform with a few amino acid changes. Based on the information available from the literature on the structure/activity studies performed on the 2C9 and 2C19 isoforms, and the analysis of the structure of the human 2C9, we postulate that the 2C9 protein could be converted to a 2C19-like
30 protein with the substrate specificities attributed to 2C19.

The residues to be mutated are one or more of:

Substitute SRS 1 of 2C9 with SRS 1 of 2C19 (the amino acid change introduced is I99H);
and/or

35 Substitute SRS 3 of 2C9 with SRS 3 of 2C19 (the amino acid changes introduced are V237L and K241E); and/or

Substitute SRS 4 of 2C9 with SRS 4 of 2C19 (the amino acid changes introduced are S286N, E288V, N289I, V292A and F295L - the key changes could be S286N, N289I, V292A and F295L); and/or

Move SRS5 of 2C19 to 2C9 (the amino acid L362I is introduced).

The minimal changes that would be required to convert 2C9 to 2C19 could be I99H, K241E, S286N, N289I, V292A, F295L and L362I and more likely to be I99H, S286N, N289I, V292A, and F295L. These mutations can be introduced by site-directed mutagenesis or cassette mutagenesis methods, as described herein.

5

A 2C19-like chimera can also be made by making the following changes: I99H, S286N, E288V, N289I, V292A, F295L. An alternative minimal change would be I99H, S286N, N289I.

10 The crystallization of such chimeras and the determination of the three-dimensional structures relies on the ability of our 2C9 proteins to yield crystals that diffract at high resolution. The aim is to modify the inside part of 2C9 to produce a new substrate binding site of 2C19 without modifying the outside shell of the proteins that allow the protein to crystallize.

G. Homology Modelling.

15 The invention also provides a means for homology modelling of other proteins (referred to below as target P450 proteins). By "homology modelling", it is meant the prediction of related P450 structures based either on x-ray crystallographic data or computer-assisted *de novo* prediction of structure, based upon manipulation of the coordinate data of Table 1, 2, 3 or 8.

20 The P450 structure set out in Table 1, 2, 3 or 8 is, as explained in further detail herein, a dimer structure. The various *in silico* modelling techniques described in this section and in the other sections of this application may utilize either the dimer structure of Table 1, 2, 3 or 8, or either of the subunits A and B. To avoid unnecessary repetition, reference is made herein to the coordinate data of Table 1, 2, 3 or 8, but this will be understood to mean either the data for both
25 subunits or just one of the subunits.

"Homology modelling" extends to target P450 proteins which are analogues or homologues of the 2C9 P450 protein whose structure has been determined in the accompanying examples. It also extends to P450 protein mutants of 2C9 protein itself.

30

In general, the method involves comparing the amino acid sequences of the 2C9 P450 protein of Table 1, 2, 3 or 8 with a target P450 protein by aligning the amino acid sequences. Amino acids in the sequences are then compared and groups of amino acids that are homologous (conveniently referred to as "corresponding regions") are grouped together. This method detects
35 conserved regions of the polypeptides and accounts for amino acid insertions or deletions.

Homology between amino acid sequences can be determined using commercially available algorithms. The programs *BLAST*, *gapped BLAST*, *BLASTN*, *PSI-BLAST* and *BLAST 2* sequences (provided by the National Center for Biotechnology Information) are widely used in
40 the art for this purpose, and can align homologous regions of two amino acid sequences. These

may be used with default parameters to determine the degree of homology between the amino acid sequence of the Table 1, 2, 3 or 8 protein and other target P450 proteins which are to be modelled.

- 5 Analogues are defined as proteins with similar three-dimensional structures and/or functions and little evidence of a common ancestor at a sequence level.

Homologues are defined as proteins with evidence of a common ancestor i.e. likely to be the result of evolutionary divergence and are divided into remote, medium and close sub-divisions
10 based on the degree (usually expressed as a percentage) of sequence identity.

A homologue is defined here as a protein with at least 15% sequence identity or which has at least one functional domain, which is characteristic of 2C9. This includes polymorphic forms of
15 2C9.

There are two types of homologue: orthologues and paralogues. Orthologues are defined as homologous genes in different organisms, i.e. the genes share a common ancestor coincident with the speciation event that generated them. Paralogues are defined as homologous genes in the same organism derived from a gene/chromosome/genome duplication, i.e. the common
20 ancestor of the genes occurred since the last speciation event.

A mutant is a 2C9 characterized by replacement or deletion of at least one amino acid from the wild type 2C9. Such a mutant may be prepared for example by site-specific mutagenesis, or incorporation of natural or unnatural amino acids.
25

The present invention contemplates "mutants" wherein a "mutant" refers to a polypeptide which is obtained by replacing at least one amino acid residue in a native or synthetic 2C9 with a different amino acid residue and/or by adding and/or deleting amino acid residues within the native polypeptide or at the N- and/or C-terminus of a polypeptide corresponding to 2C9 and
30 which has substantially the same three-dimensional structure as 2C9 from which it is derived. By having substantially the same three-dimensional structure is meant having a set of atomic structure coordinates that have a root mean square deviation (r.m.s.d.) of less than or equal to about 2.0 Å when superimposed with the atomic structure coordinates of the 2C9 from which the mutant is derived when at least about 50% to 100% of the C_α atoms of the 2C9 are included
35 in the superposition. A mutant may have, but need not have, enzymatic or catalytic activity.

To produce homologues or mutants, amino acids present in the said protein can be replaced by other amino acids having similar properties, for example hydrophobicity, hydrophobic moment, antigenicity, propensity to form or break α -helical or β -sheet structures, and so. Substitutional
40 variants of a protein are those in which at least one amino acid in the protein sequence has been

removed and a different residue inserted in its place. Amino acid substitutions are typically of single residues but may be clustered depending on functional constraints e.g. at a crystal contact. Preferably amino acid substitutions will comprise conservative amino acid substitutions. Insertional amino acid variants are those in which one or more amino acids are introduced. This
5 can be amino-terminal and/or carboxy-terminal fusion as well as intrasequence. Examples of amino-terminal and/or carboxy-terminal fusions are affinity tags, MBP tag, and epitope tags.

Amino acid substitutions, deletions and additions which do not significantly interfere with the three-dimensional structure of the 2C9 will depend, in part, on the region of the 2C9 where the
10 substitution, addition or deletion occurs. In highly variable regions of the molecule, non-conservative substitutions as well as conservative substitutions may be tolerated without significantly disrupting the three-dimensional structure of the molecule. In highly conserved regions, or regions containing significant secondary structure, conservative amino acid substitutions are preferred.

Conservative amino acid substitutions are well-known in the art, and include substitutions made on the basis of similarity in polarity, charge, solubility, hydrophobicity, hydrophilicity and/or the amphipathic nature of the amino acid residues involved. For example, negatively charged amino acids include aspartic acid and glutamic acid; positively charged amino acids include
20 lysine and arginine; amino acids with uncharged polar head groups having similar hydrophilicity values include the following: leucine, isoleucine, valine; glycine, alanine; asparagine, glutamine; serine, threonine; phenylalanine, tyrosine. Other conservative amino acid substitutions are well known in the art.

25 In some instances, it may be particularly advantageous or convenient to substitute, delete and/or add amino acid residues to a 2C9 binding pocket or catalytic residue in order to provide convenient cloning sites in cDNA encoding the polypeptide, to aid in purification of the polypeptide, etc. Such substitutions, deletions and/or additions which do not substantially alter the three dimensional structure of 2C9 will be apparent to those having skills in the art.

30 It should be noted that the mutants contemplated herein need not exhibit enzymatic activity. Indeed, amino acid substitutions, additions or deletions that interfere with the catalytic activity of the 2C9 but which do not significantly alter the three-dimensional structure of the catalytic region are specifically contemplated by the invention. Such crystalline polypeptides, or the
35 atomic structure coordinates obtained there from, can be used to identify compounds that bind to the protein.

Once the amino acid sequences of the polypeptides with known and unknown structures are aligned, the structures of the conserved amino acids in a computer representation of the
40 polypeptide with known structure are transferred to the corresponding amino acids of the

polypeptide whose structure is unknown. For example, a tyrosine in the amino acid sequence of known structure may be replaced by a phenylalanine, the corresponding homologous amino acid in the amino acid sequence of unknown structure.

- 5 The structures of amino acids located in non-conserved regions may be assigned manually by using standard peptide geometries or by molecular simulation techniques, such as molecular dynamics. The final step in the process is accomplished by refining the entire structure using molecular dynamics and/or energy minimization.
- 10 Homology modelling as such is a technique that is well known to those skilled in the art (see e.g. Greer, *Science*, Vol. 228, (1985), 1055, and Blundell *et al.*, *Eur. J. Biochem*, Vol. 172, (1988), 513). The techniques described in these references, as well as other homology modelling techniques generally available in the art, may be used in performing the present invention.

15

Thus the invention provides a method of homology modelling comprising the steps of:

- (a) aligning a representation of an amino acid sequence of a target P450 protein of unknown three-dimensional structure with the amino acid sequence of the P450 of Table 1, 2, 3 or 8 to match homologous regions of the amino acid sequences;
- 20 (b) modelling the structure of the matched homologous regions of said target P450 of unknown structure on the corresponding regions of the P450 structure as defined by Table 1, 2, 3 or 8; and
- (c) determining a conformation (e.g. so that favourable interactions are formed within the target P450 of unknown structure and/or so that a low energy conformation is formed) for said target P450 of unknown structure which substantially preserves the structure of said matched
- 25 homologous regions.

Preferably one or all of steps (a) to (c) are performed by computer modelling.

- The presence of the FG loop in our structure is particularly advantageous for modelling of other
- 30 P450s especially mammalian P450s, which have longer FG loops than bacterial P450s as there is currently nothing known in the art about the conformation of the FG loop in mammalian structures. This is advantageous for modelling compounds into this structure or modelled structures.

- 35 The data of Table 1, 2, 3 or 8 will be particularly advantageous for homology modelling of other human P450 proteins, in particular human P450s such as 2C8, 2C18, 2C19, 2D6, 3A4, 1A1, 1A2, 2E1. These proteins may be the target P450 protein in the method of the invention described above.

In a particularly preferred aspect, the homology model is selected from the group consisting of 2C19, 2C18 and 2C8. The accompanying examples show a complete homology model for 2C19 and the coordinates of 2C18 and 2C8 which may be introduced into the structures of 2C9 or 2C19 in order to provide a homology model of these proteins. The resulting homology models may be used in the methods described herein below in sections H, I and J.

H. Structure Solution

The structure of the human 2C9 P450 can also be used to solve the crystal structure of other target P450 proteins including other crystal forms of 2C9, mutants, co-complexes of 2C9, where X-ray diffraction data of these target P450 proteins has been generated and requires interpretation in order to provide a structure.

In the case of 2C9, this protein may crystallize in more than one crystal form. The structure coordinates of 2C9, or portions thereof, as provided by this invention are particularly useful to solve the structure of those other crystal forms of 2C9. They may also be used to solve the structure of 2C9 mutants, 2C9 co-complexes, or of the crystalline form of any other protein with significant amino acid sequence homology to any functional domain of 2C9.

In the case of other target P450 proteins, particularly the human P450 proteins referred to in Section D above, the present invention allows the structures of such targets to be obtained more readily where raw X-ray diffraction data is generated.

Thus, where X-ray crystallographic or NMR spectroscopic data is provided for a target P450 of unknown three-dimensional structure, the structure of P450 as defined by Table 1, 2, 3, 8 or 18 may be used to interpret that data to provide a likely structure for the other P450 by techniques which are well known in the art, e.g. phasing in the case of X-ray crystallography and assisting peak assignments in NMR spectra.

One method that may be employed for these purposes is molecular replacement. In this method, the unknown crystal structure, whether it is another crystal form of 2C9, a 2C9 mutant, or a 2C9 co-complex, or the crystal of a target P450 protein with amino acid sequence homology to any functional domain of 2C9, may be determined using the 2C9 structure coordinates of this invention as provided herein. This method will provide an accurate structural form for the unknown crystal more quickly and efficiently than attempting to determine such information *ab initio*.

Examples of computer programs known in the art for performing molecular replacement are CNX (Brunger A.T.; Adams P.D.; Rice L.M., Current Opinion in Structural Biology, Volume 8, Issue 5, October 1998, Pages 606-611 (also commercially available from Accelrys San Diego,

CA) or AMORE (Navaza, J. (1994). AMoRe: an automated package for molecular replacement. Acta Cryst. A50, 157-163).

Thus, in a further aspect of the invention provides a method for determining the structure of a protein, which method comprises;

providing the coordinates of Table 1, 2, 3 or 8, and
positioning the coordinates in the crystal unit cell of said protein so as to provide a structure for said protein.

In a preferred aspect of this invention the coordinates are used to solve the structure of target P450s particularly homologues of 2C9 for example 2C19, 2C8, 2C18.

The invention may also be used to assign peaks of NMR spectra of such proteins, by manipulation of the data of Table 1, 2, 3 or 8.

I. Computer Systems.

In another aspect, the present invention provides systems, particularly a computer system, the systems containing either (a) atomic coordinate data according to Table 1, 2, 3, 8 or 18, said data defining the three-dimensional structure of P450 or at least selected coordinates thereof; (b) structure factor data (where a structure factor comprises the amplitude and phase of the diffracted wave) for P450, said structure factor data being derivable from the atomic coordinate data of Table 1, 2, 3, 8 or 18; (c) atomic coordinate data of a target P450 protein generated by homology modelling of the target based on the data of Table 1, 2, 3, 8 or 18; (d) atomic coordinate data of a target P450 protein generated by interpreting X-ray crystallographic data or NMR data by reference to the data of Table 1, 2, 3 or 18; or (e) structure factor data derivable from the atomic coordinate data of (c) or (d).

The atomic coordinate data may be the data of the entire Table or a selected portion thereof.

With regard to (c) above, it will be appreciated that Table 18 itself is atomic coordinate data of a 2C19 obtained by the homology modelling the 2C9 structure of the present invention and the data of Table 18, and its use, forms a further aspect of the invention.

The invention also provides such systems containing atomic coordinate data of target P450 proteins wherein such data has been generated according to the methods of the invention described herein based on the starting data provided by Table 1, 2, 3, 8 or 18.

Such data is useful for a number of purposes, including the generation of structures to analyse the mechanisms of action of P450 proteins and/or to perform rational drug design of compounds which interact with P450, such as compounds which are metabolised by P450s.

In a further aspect, the present invention provides computer readable storage medium with either (a) atomic coordinate data according to Table 1, 2, 3, 8 or 18 recorded thereon, said data defining the three-dimensional structure of P450, or at least selected coordinates thereof; (b) structure factor data for P450 recorded thereon, the structure factor data being derivable from the atomic coordinate data of Table 1, 2, 3, 8 or 18; (c) atomic coordinate data of a target P450 protein generated by homology modelling of the target based on the data of Table 1, 2, 3, 8 or 18; (d) atomic coordinate data of a target P450 protein generated by interpreting X-ray crystallographic data or NMR data by reference to the data of Table 1, 2, 3, 8 or 18; or (e) structure factor data derivable from the atomic coordinate data of (c) or (d).

The atomic coordinate data may be the data of the entire Table or a selected portion thereof.

As used herein, "computer-readable storage medium" refers to any medium or media which can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media such as floppy discs, hard disc storage medium and magnetic tape; optical storage media such as optical discs or CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these categories such as magnetic/optical storage media.

By providing such a storage medium, the atomic coordinate data can be routinely accessed to model P450 or selected coordinates thereof. For example, RASMOL (Sayle et al., *TIBS*, Vol. 20, (1995), 374) is a publicly available computer software package which allows access and analysis of atomic coordinate data for structure determination and/or rational drug design.

On the other hand, structure factor data, which are derivable from atomic coordinate data (see e.g. Blundell et al., in *Protein Crystallography*, Academic Press, New York, London and San Francisco, (1976)), are particularly useful for calculating e.g. difference Fourier electron density maps.

As used herein, "a computer system" refers to the hardware means, software means and data storage means used to analyse the atomic coordinate data of the present invention. The minimum hardware means of the computer-based systems of the present invention typically comprises a central processing unit (CPU), a working memory and data storage means, and e.g. input means, output means etc. Desirably a monitor is provided to visualize structure data. The data storage means may be RAM or means for accessing computer readable media of the invention. Examples of such systems are microcomputer workstations available from Silicon Graphics Incorporated and Sun Microsystems running Unix based, Windows NT or IBM OS/2 operating systems.

In another aspect, the invention provides a computer-readable storage medium, comprising a data storage material encoded with computer readable data, wherein the data are defined by all or a portion (i.e. selected coordinates as defined herein) of the structure coordinates of 2C9 of Table 1, 2, 3 or 8, or a homologue of 2C9 including the structure of 2C19 of Table 18, wherein
5 said homologue comprises backbone atoms that have a root mean square deviation from the backbone atoms (nitrogen-carbon_n-carbon) of Table 1, 2, 3 or 8 of not more than 2.0 Å (preferably not more than 1.5 Å).

The invention also provides a computer-readable data storage medium comprising a data storage
10 material encoded with a first set of computer-readable data comprising a Fourier transform of at least a portion (i.e. selected coordinates as defined herein) of the structural coordinates for 2C9 according to Table 1, 2, 3 or 8 or 2C19 of Table 18; which, when combined with a second set of machine readable data comprising an X-ray diffraction pattern of a molecule or molecular complex of unknown structure, using a machine programmed with the instructions for using said
15 first set of data and said second set of data, can determine at least a portion of the structure coordinates corresponding to the second set of machine readable data.

A further aspect of the invention provides a method of providing data for generating structures and/or performing drug design with 2C9, 2C9 homologues or analogues, complexes of 2C9 with
20 a compound, or complexes of 2C9 homologues or analogues with compounds, the method comprising:

- (i) establishing communication with a remote device containing computer-readable data comprising at least one of: (a) atomic coordinate data according to Table 1, 2, 3 or 8, said data defining the three-dimensional structure of 2C9, at least one sub-domain of the three-
25 dimensional structure of 2C9, or the coordinates of a plurality of atoms of 2C9; (b) structure factor data for 2C9, said structure factor data being derivable from the atomic coordinate data of Table 1, 2, 3 or 8; (c) atomic coordinate data of a target 2C9 homologue or analogue generated by homology modelling of the target based on the data of Table 1, 2, 3 or 8, such as the data of Table 18; (d) atomic coordinate data of a protein generated by interpreting X-ray
30 crystallographic data or NMR data by reference to the data of Table 1, 2, 3 or 8; and (e) structure factor data derivable from the atomic coordinate data of (c) or (d); and
- (ii) receiving said computer-readable data from said remote device.

Thus another aspect of the invention provides a method of providing data for generating
35 structures and/or performing drug design with 2C19, 2C19 homologues or analogues, complexes of 2C19 with a compound, or complexes of 2C19 homologues or analogues with compounds, the method comprising:

- (i) establishing communication with a remote device containing computer-readable data comprising at least one of: (a) atomic coordinate data according to Table 18, said data defining
40 the three-dimensional structure of 2C19, at least one sub-domain of the three-dimensional

structure of 2C19, or the coordinates of a plurality of atoms of 2C19; (b) structure factor data for 2C19, said structure factor data being derivable from the atomic coordinate data of Table 18; (c) atomic coordinate data of a target 2C19 homologue or analogue generated by homology modelling of the target based on the data of Table 18; (d) atomic coordinate data of a protein
5 generated by interpreting X-ray crystallographic data or NMR data by reference to the data of Table 18; and (e) structure factor data derivable from the atomic coordinate data of (c) or (d); and

(ii) receiving said computer-readable data from said remote device.

10 Thus the remote device may comprise e.g. a computer system or a computer-readable storage medium of one of the previous aspects of the invention. The device may be in a different country or jurisdiction from where the computer-readable data is received.

The communication may be via the internet, intranet, e-mail etc. Typically the communication
15 will be electronic in nature, but some or all of the communication pathway may be optical, for example, over optical fibres.

J. Uses of the Structures of the Invention.

The crystal structures obtained according to the present invention (including the structures of
20 Table 1, 2, 3, 8 and 18 as well the structures of target P450 proteins obtained in accordance with the methods described herein) may be used in several ways for drug design. For example, many drugs or drug candidates fail to be of clinical use due to the detrimental interactions with P450 proteins, resulting in a rapid clearance of the drugs from the body. The present invention will allow those of skill in the art to attempt to rescue such compounds from development by
25 following these structure-based chemical strategies.

In the case where a drug molecule is being metabolised by a P450, information on the binding orientation by either co-crystallization, soaking or computationally docking the binding orientation of the drug in the binding pocket can be determined. This will guide specific
30 modifications to the chemical structure designed to mediate or control the interaction of the drug with the protein. Such modifications can be designed with an aim of reducing the metabolism of the drug by P450 and so of improving its therapeutic action.

The crystal structure could also be useful to understand drug-drug interactions. Many examples
35 exist where adverse reactions to drugs are recorded if administered while the patient is already taking other medicines. The mechanism behind this detrimental and often dangerous drug-drug interaction scenario may be when one drug behaves as an inhibitor of a P450 resulting in toxic levels of the other drug building-up due to less or no metabolism occurring. The crystal structure of the present invention complexed to such an inhibitor (either *in vitro* or *in silico*) may also
40 allow rational modifications either to modify the inhibitor such that it no longer inhibits or

inhibits less, or to modify the second drug such that it could bind better to the P450 (so becoming metabolised) and so displace the inhibitor.

5 P450s display significant polymorphic variations dependent on ethnic origin of the patient. This can manifest itself in adverse reactions from some segments of patient populations to some drugs. By using the crystal structures of the present invention to map the relevant mutation with respect to the binding mode of the drug, chemical modifications could also be made to the drug to avoid interactions with the variable region of the protein. This would ensure more consistent therapeutic value from the drug for such segments of the population and avoid dangerous side-effects.
10

Some pharmaceutical compounds are converted by P450s into active metabolites. In the case of such compounds, a greater understanding of how such compounds are converted by a P450 will allow modification of the compound so that it can be converted at a different rate. For example, increasing the rate of conversion may allow a more rapid delivery of a desired therapeutic effect, whereas decreasing the rate of conversion may allow for higher doses to be administered or the development of sustained release pharmaceutical preparations, for example comprising a mixture of compounds which are metabolised at different rates to form the same active metabolite.
15

20 Thus, the determination of the three-dimensional structure of P450 provides a basis for the design of new compounds which interact with P450 in novel ways. For example, knowing the three-dimensional structure of P450, computer modelling programs may be used to design different molecules expected to interact with possible or confirmed active sites, such as binding sites or other structural or functional features of P450.
25

(i) Obtaining and analysing crystal complexes.

In one approach, the structure of a compound bound to a P450 may be determined by experiment. This will provide a starting point in the analysis of the compound bound to P450, thus providing those of skill in the art with a detailed insight as to how that particular compound interacts with P450 and the mechanism by which it is metabolised.
30

Many of the techniques and approaches to structure-based drug design described above rely at some stage on X-ray analysis to identify the binding position of a ligand in a ligand-protein complex. A common way of doing this is to perform X-ray crystallography on the complex, produce a difference Fourier electron density map, and associate a particular pattern of electron density with the ligand. However, in order to produce the map (as explained e.g. by Blundell et al., mentioned above) it is necessary to know beforehand the protein 3D structure (or at least the protein structure factors). Therefore, determination of the P450 structure also allows production
35

of difference Fourier electron density maps of P450-compound complexes and determination of the binding position of a drug, and hence may greatly assist the process of rational drug design.

Accordingly, the invention provides a method for determining the structure of a compound

5 bound to P450, said method comprising:

providing a crystal of 2C9 P450 according to the invention;

soaking the crystal with said compounds; and

determining the structure of said 2C9 P450 compound complex by employing the data of Table 1, 2, 3, 8 or 18.

10

Alternatively, the P450 and compound may be co-crystallized. Thus the invention provides a method for determining the structure of a compound bound to P450, said method comprising: mixing the protein with the compound(s), crystallizing the protein-compound(s) complex; and determining the structure of said P450-compound(s) complex by reference to the data of Table

15 1, 2, 3, 8 or 18.

The analysis of such structures may employ (i) X-ray crystallographic diffraction data from the complex and (ii) a three-dimensional structure of P450, or at least selected coordinates thereof, to generate a difference Fourier electron density map of the complex, the three-dimensional structure being defined by atomic coordinate data according to Table 1, 2, 3 or 8. The difference Fourier electron density map may then be analysed.

20

Therefore, such complexes can be crystallized and analysed using X-ray diffraction methods, e.g. according to the approach described by Greer et al., *J. of Medicinal Chemistry*, Vol. 37, (1994), 1035-1054, and difference Fourier electron density maps can be calculated based on X-ray diffraction patterns of soaked or co-crystallized P450 and the solved structure of uncomplexed P450. These maps can then be analysed e.g. to determine whether and where a particular compound binds to P450 and/or changes the conformation of P450.

25

30 Electron density maps can be calculated using programs such as those from the CCP4 computing package (Collaborative Computational Project 4. The CCP4 Suite: Programs for Protein Crystallography, *Acta Crystallographica*, D50, (1994), 760-763.). For map visualization and model building programs such as "O" (Jones et al., *Acta Crystallographica*, A47, (1991), 110-119) can be used.

35

In addition, in accordance with this invention, 2C9 mutants may be crystallized in co-complex with known 2C9 substrates or inhibitors or novel compounds. The crystal structures of a series of such complexes may then be solved by molecular replacement and compared with that of the 2C9 of Table 1, 2, 3 or 8. Potential sites for modification within the various binding sites of the enzyme may thus be identified. This information provides an additional tool for determining the

40

most efficient binding interactions, for example, increased hydrophobic interactions, between 2C9 and a chemical entity or compound.

For example there are alleles of 2C9, which differ from the native 2C9 by only 1 or 2 amino acid substitutions, and yet individuals who express these allelic variants may exhibit very different drug metabolism profiles. By generating these allelic proteins and determining the co-complex with compounds a greater understanding of allelic interactions with compounds may be developed.

All of the complexes referred to above may be studied using well-known X-ray diffraction techniques and may be refined against 1.5 to 3.5 Å resolution X-ray data to an R value of about 0.30 or less using computer software, such as CNX (mentioned above) X-PLOR (Yale University, ©1992, distributed by Accelrys – also see, e.g., Blundell et al; Methods in Enzymology, vol. 114 & 115, H. W. Wyckoff et al., eds., Academic Press (1985) (23)).

This information may thus be used to optimise known classes of 2C9 substrates or inhibitors, and more importantly, to design and synthesize novel classes of 2C9 inhibitors and design drugs with modified P450 metabolism.

(ii) *In silico analysis and design.*

Although the invention will facilitate the determination of actual crystal structures comprising a P450 and a compound which interacts with the P450, current computational techniques provide a powerful alternative to the need to generate such crystals and generate and analyse diffraction data. Accordingly, a particularly preferred aspect of the invention relates to *in silico* methods directed to the analysis and development of compounds which interact with P450 structures of the present invention.

Thus as a result of the determination of the P450 three-dimensional structure, more purely computational techniques for rational drug design may also be used to design structures whose interaction with P450 is better understood (for an overview of these techniques see e.g. Walters et al (*Drug Discovery Today*, Vol.3, No.4, (1998), 160-178). For example, automated ligand-receptor docking programs (discussed e.g. by Jones et al. in *Current Opinion in Biotechnology*, Vol.6, (1995), 652-656) which require accurate information on the atomic coordinates of target receptors may be used.

The aspects of the invention described herein which utilize the P450 structure *in silico* may be equally applied to both the 2C9 structure of Table 1, 2, 3 or 8 and the models of target P450 proteins obtained by other aspects of the invention. Thus having determined a conformation of a P450 by the method described above, such a conformation may be used in a computer-based method of rational drug design as described herein. In addition the availability of the structure

of the P450 2C9 will allow the generation of highly predictive pharmacophore models for virtual library screening or compound design.

Accordingly, the invention provides a computer-based method for the analysis of the interaction of a molecular structure with a P450 structure of the invention, which comprises:

- providing the structure of a P450 of the invention;
- providing a molecular structure to be fitted to said P450 structure; and
- fitting the molecular structure to the P450 structure.

The P450 structure of the invention may be the structure of any one of Table 1, 2, 3, 8 or 18 or selected coordinates thereof.

In an alternative aspect, the method of the invention may utilize the coordinates of atoms of interest of the P450 which are in the vicinity of a putative molecular structure binding region in order to model the pocket in which the structure binds. These coordinates may be used to define a space which is then analysed "*in silico*". Thus the invention provides a computer-based method for the analysis of molecular structures which comprises:

- providing the coordinates of at least two atoms of a P450 structure of the invention ("selected coordinates");
- providing a molecular structure to be fitted to said coordinates; and
- fitting the structure to the selected coordinates of the P450.

In practice, it will be desirable to model a sufficient number of atoms of the P450 as defined by the coordinates of Table 1, 2, 3, 8 or 18 which represent a binding pocket. Binding pockets and other features of the interaction of P450 with co-factor are described in the accompanying example. Thus, in this embodiment of the invention, there will preferably be provided the coordinates of at least 5, preferably at least 10, more preferably at least 50 and even more preferably at least 100 selected atoms such as at least 500 or at least 1000 atoms of the P450 structure.

Although every different compound metabolised by P450 may interact with different parts of the binding pocket of the protein, the structure of this P450 allows the identification of a number of particular sites which are likely to be involved in many of the interactions of P450 with a drug candidate. The residues are set out in the accompanying example. Thus in this aspect of the invention, the selected coordinates may comprise coordinates of some or all of these residues.

In order to provide a three-dimensional structure of compounds to be fitted to a P450 structure of the invention, the compound structure may be modelled in three dimensions using commercially available software for this purpose or, if its crystal structure is available, the

coordinates of the structure may be used to provide a representation of the compound for fitting to a P450 structure of the invention.

By "fitting", it is meant determining by automatic, or semi-automatic means, interactions between at least one atom of a molecular structure and at least one atom of a P450 structure of the invention, and calculating the extent to which such an interaction is stable. Interactions include attraction and repulsion, brought about by charge, steric considerations and the like. Various computer-based methods for fitting are described further herein.

More specifically, the interaction of a compound with P450 can be examined through the use of computer modelling using a docking program such as GRAM, DOCK, or AUTODOCK (see Walters et al., *Drug Discovery Today*, Vol.3, No.4, (1998), 160-178, and Dunbrack et al., *Folding and Design*, 2, (1997), 27-42). This procedure can include computer fitting of compounds to P450 to ascertain how well the shape and the chemical structure of the compound will bind to the P450.

Also computer-assisted, manual examination of the active site structure of P450 may be performed. The use of programs such as GRID (Goodford, *J. Med. Chem.*, 28, (1985), 849-857) - a program that determines probable interaction sites between molecules with various functional groups and an enzyme surface - may also be used to analyse the active site to predict, for example, the types of modifications which will alter the rate of metabolism of a compound.

Computer programs can be employed to estimate the attraction, repulsion, and steric hindrance of the two binding partners (i.e. the P450 and a compound).

If more than one P450 active site is characterized and a plurality of respective smaller compounds are designed or selected, a compound may be formed by linking the respective small compounds into a larger compound which maintains the relative positions and orientations of the respective compounds at the active sites. The larger compound may be formed as a real molecule or by computer modelling.

Detailed structural information can then be obtained about the binding of the compound to P450, and in the light of this information adjustments can be made to the structure or functionality of the compound, e.g. to alter its interaction with P450. The above steps may be repeated and re-repeated as necessary.

As indicated above, molecular structures which may be fitted to the P450 structure of the invention include compounds under development as potential pharmaceutical agents. The agents may be fitted in order to determine how the action of P450 modifies the agent and to

provide a basis for modelling candidate agents which are metabolised at a different rate by a P450.

5 Molecular structures which may be used in the present invention will usually be compounds under development for pharmaceutical use. Generally such compounds will be organic molecules which are typically from about 100 to 2000 Da, more preferably from about 100 to 1000 Da in molecular weight. Such compounds include peptides and derivatives thereof, steroids, anti-inflammatory drugs, anti-cancer agents, anti-bacterial or antiviral agents, neurological agents and the like. In principle, any compound under development in the field of
10 pharmacy can be used in the present invention in order to facilitate its development or to allow further rational drug design to improve its properties.

A single reductase provides several different isoforms of P450 with the electrons required in the catalytical cycle. As such, knowledge of the cytochrome P450 reductase (CPR) binding site on
15 P450 and its characteristics present a means of altering the rate of catalysis, by mediating the P450 CPR interactions. The structure of 2C9 will allow the *in silico* identification of residues important in the P450 – CPR interface.

(iii) Analysis and modification of compounds and metabolites

20 Where the primary metabolite of a potential or actual pharmaceutical compound is known, and this metabolite is generated by the action of P450, the structure of the agent and its metabolite may both be modelled and compared to each other in order to better determine residues of P450 which interact with the agent. In any event, the present invention provides a process for predicting potential pharmaceutical compounds with a desired activity which are metabolised by
25 P450 at a rate different from a starting compound having the same desired activity, which method comprises:

fitting a starting compound to a P450 structure of the invention or selected coordinates thereof;

30 determining or predicting how said compound is metabolised by said P450 structure; and modifying the compound structure so as to alter the interaction between it and the P450.

It would be understood by those of skill in the art that modification of the structure will usually occur *in silico*, allowing predictions to be made as to how the modified structure interacts with the P450.

35

Modification will be those conventional in the art known to the skilled medicinal chemist, and will include, for example, substitutions or removal of groups containing residues which interact with the amino acid side chain groups of a P450 structure of the invention. For example, the replacements may include the addition or removal of groups in order to decrease or increase the
40 charge of a group in a test compound, the replacement of a charge group with a group of the

opposite charge, or the replacement of a hydrophobic group with a hydrophilic group or vice versa. It will be understood that these are only examples of the type of substitutions considered by medicinal chemists in the development of new pharmaceutical compounds and other modifications may be made, depending upon the nature of the starting compound and its activity.

Although it is usually desired to alter a compound to prevent its metabolism by P450, or at least to reduce the rate at which P450 metabolises the compound, the present invention also includes developing compounds which are metabolised more rapidly than a starting compound, for example where such a compound blocks metabolism of another drug.

Where a potential modified compound has been developed by fitting a starting compound to the P450 structure of the invention and predicting from this a modified compound with an altered rate of metabolism, the invention further includes the step of synthesizing the modified compound and testing it in a in vivo or in vitro biological system in order to determine its activity and/or the rate at which it is metabolised.

The above-described processes of the invention may be iterated in that the modified compound may itself be the basis for further compound design.

(iv) Fragment linking and growing.

The provision of the crystal structures of the invention will also allow the development of compounds which interact with the binding pocket regions of P450s (for example to act as inhibitors of a P450) based on a fragment linking or fragment growing approach.

For example, the binding of one or more molecular fragments can be determined in the protein binding pocket by X-ray crystallography. Molecular fragments are typically compounds with a molecular weight between 100 and 200 Da. This can then provide a starting point for medicinal chemistry to optimise the interactions using a structure-based approach. The fragments can be combined onto a template or used as the starting point for 'growing out' an inhibitor into other pockets of the protein. The fragments can be positioned in the binding pocket of the P450 and then 'grown' to fill the space available, exploring the electrostatic, van der Waals or hydrogen-bonding interactions that are involved in molecular recognition. The potency of the original weakly binding fragment thus can be rapidly improved using iterative structure-based chemical synthesis.

At one or more stages in the fragment growing approach, the compound may be synthesized and tested in a biological system for its activity. This can be used to guide the further growing out of the fragment.

Where two fragment-binding regions are identified, a linked fragment approach may be based upon attempting to link the two fragments directly, or growing one or both fragments in the manner described above in order to obtain a larger, linked structure which may have the desired properties.

5

(v) Compounds of the invention.

Where a potential modified compound has been developed by fitting a starting compound to the P450 structure of the invention and predicting from this a modified compound with an altered rate of metabolism (including a slower, faster or zero rate), the invention further includes the step of synthesizing the modified compound and testing it in a in vivo or in vitro biological system in order to determine its activity and/or the rate at which it is metabolised.

10

In another aspect, the invention includes a compound which is identified by the methods of the invention described above.

15

Following identification of such a compound, it may be manufactured and/or used in the preparation, i.e. manufacture or formulation, of a composition such as a medicament, pharmaceutical composition or drug. These may be administered to individuals.

20

Thus, the present invention extends in various aspects not only to a compound as provided by the invention, but also a pharmaceutical composition, medicament, drug or other composition comprising such a compound e.g. for treatment (which may include preventative treatment) of disease; a method comprising administration of such a composition to a patient, e.g. for treatment of disease; use of such an inhibitor in the manufacture of a composition for administration, e.g. for treatment of disease; and a method of making a pharmaceutical composition comprising admixing such an inhibitor with a pharmaceutically acceptable excipient, vehicle or carrier, and optionally other ingredients.

25

Summary of Examples.

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The invention is illustrated by the examples, which illustrate the invention as follows:

Example 1 shows the production of DNA encoding 2C9trunc, 2C9-FGloop, 2C9-FGloop K206E and 2C9P220.

35

Example 2 shows the expression of 2C9P220 and 2C9-FGloop in bacteria and the recovery of protein.

Example 3 shows quality assays of the proteins of example 2.

40

Example 4 shows crystallisation conditions used to obtain crystals of 2C9-FGloop.

Example 5 shows crystallisation conditions used to obtain crystals of 2C9P220.

5 Example 6 shows a further production of 2C9-FGloop and the mass spectrometry and activity data of the recovered protein.

Example 7 shows the production of crystals of 2C9-FGloop.

10 Example 8 shows the expression and recovery of 2C9-FGloop K206E and the mass spectrometry and activity data of the recovered protein, plus crystallisation of the protein.

Example 9 shows the crystallisation and structure analysis of 2C9-FGloop K206E at a 3Å resolution, as set out in Table 1.

15 Example 10 shows a further crystallisation of 2C9-FGloop K206E.

Example 11 shows the production of a higher resolution (2.6Å) structure of 2C9-FGloop K206E

20 Example 12 shows the production of a high resolution (3.1Å) structure of 2C9-FGloop.

Example 13 identifies residues of the P450 binding pocket and describes their use in the practice of the present invention.

25 Example 14 describes the use of modelling techniques using structures of the invention.

Example 15 outlines a docking experiment.

Example 16 shows the refinement of 2C9-FGloop K206E structure.

30 Example 17 shows the production of further 2C9 proteins.

Example 18 shows the production of 2C9 proteins.

Example 19 shows the activity of 2C9 Proteins of the invention.

35 Example 20 shows crystallisation of 2C9 proteins.

Example 21 describes 2C9-2C19 Chimeras.

40 Example 22 shows the production of 2C9-2C19 chimeras.

Example 23 shows validation of 2C9-FGloop K206E.

Example 24 shows the activity of 2C9-2C19 Chimeras.

5

Example 25 shows crystallisation of 2C9-2C19 chimeric proteins.

Example 26 shows homology Modelling of 2C19.

10

Example 27 shows homology modelling of 2C18.

Example 28 shows homology modelling of 2C8.

Example 1: Production of DNA encoding 2C9 proteins.

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Summary

Cytochrome P450 2C9 was targeted for crystallisation. Conversion of this intrinsic membranous protein to a more water-soluble form, by removal of the N-terminus trans-membrane domain was performed prior to crystallisation.

20

Several N-terminus truncations, largely described in the literature, have been used to produce N-truncated cytochrome P450s (including 2E1, 2D6, 2B1 and others). However, most of these N-terminal truncations failed to produce fully soluble proteins and in most cases, the truncated P450s still remained associated with membranes.

25

The membrane anchor domain MDSLVLVLCLSCLLLLSLWRQSSGRGKL (SEQ ID NO:113) present in 2C9 (residues 2 to 29) was substituted by a short hydrophilic peptide MAKKTSSKGR (SEQ ID NO:114). The introduction of a highly charged polypeptide at the N-terminus of this protein was found to greatly decrease the membrane association of these proteins. It has also been found that the nature of the second codon in a lacZ expression system
30 influences the level of expression (Looman et al, EMBO J., 6;2489-24992, 1987) and here alanine at position 2 provided good expression in *E. coli*.

35

Cytochrome P450 exhibits a high tendency to form large aggregates. The N-terminal deletion of cytochrome P450 has prevented aggregation and reduced polydispersity. This, in turn, facilitates the crystallisation of these proteins.

A four histidine tag was inserted at the C-terminus of 2C9 to help purification in high salt buffers.

Our preliminary results, using conditions from commercially available screening kits, indicated that the apo and native N-terminus truncated 2C9, 2C9trunc, did not produce any useful crystals. Thus the protein requires further modifications to promote crystallisation, and more importantly to promote production of useful crystals. Accordingly, the FG loop of the protein was
5 considered for modification.

The design of the modification in the F-G loop was based on the published results on the crystallisation of the rabbit cytochrome P450 that indicated that the F and G helices were involved in the formation of a crystal contact. We predicted that the relative position of the F-G
10 loop in the protein 2C9trunc could interfere with the ability of the F and G helices to constitute crystal contacts. It was proposed that the F-G loop, longer and more mobile than the counterpart found in the bacterial P450 BM3, may be stabilized or conformationally changed by six amino acid substitutions: Ile215Val, Cys216Tyr, Ser220Pro, Pro221Ala, Ile222Leu and Ile223Leu. In the resultant construct, 2C9-FGloop, the position of proline 220 is moved by one residue. The
15 proline residue, often reported as initiating changes in secondary structure, may induce a conformational change in the F-G loop and facilitate the formation of crystal contacts. In the generation of the protein 2C9-P220, the proline is moved from position 221, as seen in 2C9 wild type to position 220 as seen in 2C19 wild type. Thus the serine 220 was mutated to proline and proline 221 was mutated to threonine. The introduction of these two changes alone was
20 sufficient to promote crystallisation. A single mutation of S220P, retaining the proline at 221 was also sufficient to get crystallisation.

In the generation of the protein 1424, the proline is moved from position 221, as seen in 2C9 wild type to position 222. This shows that the proline can be moved one amino acid either side
25 of 221 to promote successful crystallisation.

We believe having a proline at 220 or 222, preferably proline 220 is a critical determinant for crystallisation of 2C9. In particular it is a critical determinant for obtaining apo crystals of 2C9. It is also important for obtaining diffraction quality crystals of 2C9. Residue 221 can be alanine,
30 or threonine. It can also be proline or serine.

The mutagenesis of human 2C9 cytochrome P450 was performed by a variety of standard recombinant DNA techniques including cassette mutagenesis, site-directed mutagenesis or specific cloning protocols. For cassette mutagenesis, complementary oligonucleotides bearing
35 the mutations were annealed and cloned, using natural restriction sites or sites that have been introduced by PCR mutagenesis into the P450 cDNA. The constructs were verified by restriction mapping followed by full sequencing. Other techniques are described herein or are well known as such to those of skill in the art.

N-terminal truncation of P450

The expression vector pCWori+, provided by Prof. F. W. Dahlquist, University of Oregon, Eugene, Oregon, USA, was used to express the truncated human cytochrome P450s in the *E. coli* strain XL1 Blue (Stratagene). A full-length cDNAs encoding cytochrome P450 2C9 was used as a template for PCR amplification, engineering the 5' terminus deletion, insertion of

5 silent restriction sites and insertion of a four Histidine tag at the C-terminus.

A *NotI* restriction site (underlined) was introduced in 2C9 at position 87 by PCR amplification using the following 5' oligonucleotide:

10 5'-ATAAGAATGC GGCCGCCTGGCCCCACTCCTCTCCCAGTGATTGGAAATATC-3'
(SEQ ID NO:115).

The 3' oligonucleotides:

5'-TGCGGTCGACTCAGTGGTGGTGGTGGACAGGAATGAAGCAGAGCTGGTAG-3'
(SEQ ID NO: 116) with a *Sall* cloning site (underlined) and the four Histidine tag (*italics*) was used. A total of 30 cycles at 94 °C for 1 min, 52 °C for 1 min, and 72 °C for 2 min were followed by an extension of 10 min at 72 °C. The 1420-bp PCR fragment was double digested with *NotI/Sall* and purified by gel agarose elution and extraction.

The complementary oligonucleotides

20 5'-TATGGCTAAGAAAACGAGCTCTAAAGGGC-3' (SEQ ID NO:117) and
5'-GGCCGCCCCTTTAGAGCTCGTTTTCTTAGCCA-3' (SEQ ID NO:118)
with the *NdeI* and *NotI* overhang restriction sites (underlined) were designed to substitute the residues 2-29 of the native N terminus of human cytochrome P450 2C9 by the short AKKTSSKGR polypeptide. The oligonucleotides were annealed by mixing 10 µg of each
25 Oligonucleotide in 100 µl of water, heating at 100°C for 5 min and slow cooling at room temperature.

The 1420-bp PCR fragment was mixed to the double stranded oligonucleotide and ligated in the vector pCWori+, previously digested with *NdeI* and *Sall*. An aliquot of the ligation product was used to transform *E. coli* XL1 Blue strain to yield the plasmid pCW-2C9trunc that encodes for the amino-terminal truncated 2C9.

The truncated 2C9 was used to make the proteins for further crystallisation experiments.

35 *Construction of 2C9-FGloop*

The plasmid pCW-2C9trunc was used as template for the insertion of six amino acids substitutions, Ile215Val, Cys216Tyr, Ser220Pro, Pro221Ala, Ile222Leu, Ile223Leu in the FG loop. pCW-2C9trunc was digested by *NdeI* and *BamHI* restriction enzyme and the 579-bp corresponding to the 5' terminus of the P450 gene was purified by gel agarose extraction and elution. A double strand oligonucleotide designed to introduce the six amino acids substitution

40

in the FG loop, was generated by annealing the following complementary oligonucleotides 5'-GATCCAGGTCTACAATAATTTCCCTGCTCTCCTTGATTATTC-3' (SEQ ID NO:119) and 5'-CCGGGAAATAATCAAGGAGAGCAGGGAAATTATTGTAGACCTG-3' (SEQ ID NO:120) with the overhang *Bam*HI and *Xma*I restriction sites (underlined) and the six mutated codons (*italics*). The 579-bp fragment and the double strand oligonucleotide were ligated in the vector pCW-2C9trunc, previously digested by *Nde*I and *Xma*I. An aliquot of the ligation was used to transform XL1 Blue *E. coli* and yield the plasmid pCW-2C9-FGloop.

Construction of 2C9-P220

- 2C9-P220 is a 2C9trunc mutant carrying the mutations S220P and P221T. This mutant was made using the Stratagene QuikchangeTM mutagenesis kit (catalogue number #200518), according to manufacturers instructions. The QuikchangeTM mutagenesis method generates a mutated plasmid with staggered nicks and uses DpnI digestion to remove all parental DNA. Reactions were made incorporating 5.0 µL x10 reaction buffer, 5-50 ng pCW-2C9trunc plasmid DNA, 1.0 µL dNTP and 125 ng oligonucleotide primers as follows, with mutated bases shown in lowercase and the two amino acid change underlined:

5' CCAGATCTGCAATAATTTTcGgCcACATTGATTACTTCCC 3' (SEQ ID NO:121)

5' GGGAAGTAATCAATGATgGtcGgAAAATTATTGCAGATCTGG 3' (SEQ ID NO:122)

- Reactions were made to 50 µL with sterile water, 2.5U Pfu Turbo was then added and the reaction overlayed with 30 µL mineral oil. Thermocycling was then carried out as follows: 95°C, 30 sec (1 cycle), 95°C, 30 sec, 55°C, 1 min, 68°C 13.5 min (18 cycles) and finally a holding period at 4°C. A control reaction was also included with water in place of oligonucleotide primers.

- Following thermocycling 10 U DpnI was added, under the level of the mineral oil, to each reaction. The reactions were then gently mixed followed by centrifugation in a bench top microcentrifuge, 1 min, 13,000 rpm and incubated at 37 °C for 3 hr. Digested product (1 µL) was then used to transform 50 µL competent *E. coli* XL1-Blue cells. The whole transformation as then plated onto Luria agar plates containing 100 µg/ml carbenicillin, inverted, and incubated overnight at 37 °C. Colonies were isolated and the plasmid DNA pCW-2C9-P220 isolated and sequenced to check for the insertion of the correct mutation.

Construction of 2C9-FGloop-K206E

- The plasmid pCW-2C9-FGloop was used as a template for the substitution Lys206Glu (where the numbering is of the full length wild type 2C9, SwissProt: P11712, not that of SEQ ID NO:2 or 4). Primers were designed to lie across the region to be mutated;

5'-GGAAAAGTTGAATGAAAACATCGAGATTTTGAGCAGCCCCTGG-3' (SEQ ID NO:123)

- 5'-CCAGGGGCTGCTCAAAATCTCGATGTTTTTCACTTTTCC-3' (SEQ ID NO:124)

where the mutated codon is shown in bold. These primers were then used in the protocol for Quikchange™ mutagenesis (Stratagene) which is briefly summarised.

Primers were resuspended to 125 ng/μl and used in a PCR reaction which elongated around the plasmid from the mutagenic primer. The template DNA was then digested using DpnI, a
5 methylation specific restriction endonuclease which preferentially degrades the template due to its methylation. After DpnI treatment 1 μl of the resultant sample was transformed into *E. coli* XL1 Blue strain. Colonies were picked and sequenced. Plasmids containing the mutation were chosen and digested with the restriction endonucleases NdeI and SalI. The NdeI SalI DNA
10 fragment corresponding to the coding sequence of the 2C9-FGloop K206E mutant was then sub-cloned into a pCW vector digested with NdeI and SalI. This served to remove any errors incorporated during the PCR phase of the Quickchange mutagenesis.

Example 2: Expression of 2C9P220 and 2C9-FGloop.

Bacteria expression

15 A single ampicillin resistant colony of XL1 blue cells was grown overnight at 37 °C in Terrific Broth (TB) with shaking to near saturation and used to inoculate fresh TB media. Bacteria were grown to an OD_{600nm} = 0.4 in 1 litre of TB broth containing 100 μg/ml of ampicillin at 37 °C at 185 rpm in 2 litre flask. The haem precursor delta aminolevulinic acid (80 mg/l) was added 30 min prior to induction with 1 mM isopropyl-β-D-thiogalactopyranoside (IPTG) and the
20 temperature lowered to 30 °C. The bacterial culture was continued under agitation at 30 °C for 48 to 72 hours.

(a) Protein purification

The cells were pelleted at 10000 g for 10 min and resuspended in a buffer containing 500 mM
25 KPi, pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 0.1% (v/v) of protease inhibitor cocktail (Calbiochem), 10 mM imidazole, 0.01 mg/ml DNase 1 and 5 mM MgSO₄.

The cells were lysed by passing twice through a Constant Systems Cell Homogeniser at 12000 psi. The cell debris was then removed by centrifugation at 70000 g at 4 °C for 30 min.

30 Detergent IGEPAL CA630 (Sigma) was added dropwise from a 10% stock solution to the lysate at a final concentration of 0.3% (v/v) and the lysate was incubated with previously washed NiNTA resin (Qiagen) overnight at 4 °C, using agitation. The protein bound-NiNTA resin was pelleted by centrifugation at 2000 g for 2 min at 4 °C. The resin was washed with 20 resin
35 volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 10 mM imidazole, 1:1000 dilution of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630 and the resin pelleted by centrifugation at 2000 xg for 2 min at 4 °C. The resin was then washed with 10 resin volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 20 mM imidazole, 0.1% (v/v) protease inhibitors, 0.3% IGEPAL CA630 and the resin recovered by centrifugation as
40 described above. The washing step was repeated as described above with buffer containing 50

mM imidazole. The resin was packed into a column at 4 °C and the cytochrome P450 eluted with 500 mM KPi, pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 300 mM imidazole, 0.1% (v/v) of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630.

5 (b) *An alternative method for protein purification is as follows:*

The cells were pelleted at 10000 g for 10 min and resuspended in a buffer containing 500 mM KPi, pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 0.1% (v/v) of protease inhibitor cocktail (Calbiochem), 0.01 mg/ml DNase 1 and 5 mM MgSO₄.

- 10 The cells were lysed by passing twice through a Constant Systems Cell Homogeniser at 12000 psi. The cell debris was then removed by centrifugation at 70000 g at 4°C for 30 min.

- Detergent IGEPAL CA630 (Sigma) was added dropwise from a 10% stock solution to the lysate at a final concentration of 0.3% (v/v) and the lysate was incubated with previously washed
15 NiNTA resin (Qiagen) overnight at 4°C, using agitation. The NiNTA resin was pelleted by centrifugation at 2000 g for 2 min at 4 °C and washed, as described above, with 20 resin volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 50 mM glycine 0.1% (v/v) protease inhibitors, 0.3% IGEPAL CA630, followed by washing with 10 resin volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 7.5 mM Histidine, 0.1% (v/v)
20 protease inhibitors, 0.3% IGEPAL CA630. The resin was recovered by centrifugation between washing steps and then the resin was packed into a column at 4 °C. The protein was eluted with 500 mM KPi, pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 100 mM histidine, 0.1% (v/v) of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630.

- 25 The cytochrome P450 obtained from the NiNTA column by either elution protocol was quickly desalted (<10 min) into 10 mM KPi, pH 7.4, 20% glycerol, 0.2 mM DTT, 1 mM EDTA using a HiPrep 26/10 desalting column (Pharmacia), at a flow rate of 5 ml/min and collecting 16 ml fractions. The desalted cytochrome P450 was directly applied to a CM Sepharose column (Pharmacia), previously equilibrated with 10 mM KPi, pH 7.4, 20% glycerol, 0.2 mM DTT, 1
30 mM EDTA. The following step elution was applied: wash with 10 column volumes of 10 mM KPi, pH 7.4, 20% glycerol, 0.2 mM DTT, 1 mM EDTA, wash with the above buffer with 75 mM KCl in order to remove any trace of detergent, then eluted with the above buffer with KCl concentration increased to 500 mM. The protein was concentrated up to 40 mg/ml using a microconcentrator for crystallization assays.

35

At this stage, the protein can be optionally further purified by running a gel filtration column. The concentrated P450 sample was applied on the top of a Superose 6 HR10/30 gel filtration column (Pharmacia) and eluted at 0.2 ml/min with buffer containing 100 mM KPi, pH 7.4, 300 mM KCl, 20% glycerol, 0.2 mM DTT. The protein was collected and concentrated up to 40
40 mg/ml, as described above, for crystallization and quality assays.

Example 3: Quality Assays.

The quality of the final preparation of proteins from Example 2 was evaluated by:

5 (a) *SDS polyacrylamide gel electrophoresis.*

This was performed using commercial gels (Nugen) followed by CBB (coomassie brilliant blue) staining according to the manufacturer's instructions. The purity as estimated by scanning a digital image of a gel was estimated to be at least 95%.

10 (b) *Gel filtration chromatography.*

This was done using a Superose 6 HR10-30 column (Pharmacia) was performed to assess the aggregation state. The fractionation range for this column is 5×10^3 to 5×10^6 Da and is thus well adapted to the resolution of large complexes. The column was eluted at 0.2 ml/min with buffer containing 100 mM KPi, pH 7.4, 300 mM KCl, 20% glycerol, 0.2 mM DTT, 1 mM EDTA. 0.2 ml protein samples at a concentration of approximately 40 mg/ml were used. Absorbance at 280 nm was monitored and the peak was collected and analysed using dynamic light scattering.

15 (c) *Light scattering.*

Samples (0.15 ml) collected after the CM Sepharose column and/or the gel filtration column were analysed by DLS in fluorimeter quartz cells at 90° using laser radiation at 830.3 nm. Data was collected using a log correlator with variable expansion spanning a wide dynamic range. All measurements were performed at 20 °C with samples collected immediately from the gel filtration column. A run was on average 10 runs of 10 seconds each. To obtain an estimation of the molecular weight, we used a frictional ratio of 1.26 and a partial specific volume of 0.726.

25 Samples prepared using our new method of purification possessed a good solubility and an absence of significant aggregation as shown by:

- 30 - the ratio of far channel extrapolation and measured average scattering was always between 0.999 and 1.003.
- the average count rate did not vary significantly, with approximately 1% standard deviation.
- analysis of the autocorrelation function using bi exponential fitting showed that 2C9 had an estimated Mr of approximately 180 KDa, i.e. it is an oligomer composed of no more than four subunits.
- 35 - good stability of the samples (over 24h) at 20°C.

Samples prepared by published protocols showed signs of a severe aggregation:

- large fluctuations of the scattered light intensity, with a standard deviation of more than 10%.

- analysis of the autocorrelation function showed very slow exponential decay an indication of the presence of large aggregates ($M_r > 10^6$ Da), composed of a large number of P450 subunits. These samples also show a high degree of polydispersity.
- samples also showed further aggregation as a function of time.

5

These signs of severe aggregation in samples prepared by published methods were still present after sample filtration through 20 nm diameter pores or centrifugation at 200,000g for 30 min.

(d) Mass Spectroscopy

- 10 Mass spectroscopy was performed on a single quadrupole mass spectrometer (platformII, Micromass UK Ltd.). Samples (25 μ l of purified protein at 25-60 mg/ml) were dialyzed against 0.1 M ammonium acetate at 4 °C for 4 hours, using microcell dialyser (Pierce). The samples were diluted by a factor of 100 in 1:1 v/v methanol:0.1% aqueous formic acid and were then infused into the ionisation source of the mass spectrometer with a flow rate of 20 μ l/min.

15

The mass spectrometer was fitted with a standard electrospray ionisation source. Positive electrospray ionisation was affected with a probe tip voltage of 3.5 kV, and a counter electrode voltage of 0.5 kV. Nitrogen was employed as both the nebulising and the drying gas, with a nebulising gas flow rate of 20 L/hr and a drying flow rate of 200L/hr. The sampling cone voltage was maintained at 40V. Data were acquired over the appropriate m/z range and were subsequently processed by manual identification of the components wherever possible, followed by transposition onto a true molecular mass scale for more facile identification using Maximum Entropy processing techniques. The mass accuracy obtained for the analysed protein was 0.01% of the mass.

25

(e) Functionality assays

Activity assays on P450 2C9 were performed in a 96-well plate assay format with a Fluoroscanner Ascent FL Instruments (Labsystem), using the methoxy-4-(trifluoromethyl)-coumarin as a fluorescent substrate.

30

Fifteen pmoles of P450 were reconstituted with 0.1 unit of purified human oxidoreductase, in presence of 140 μ M of substrate methoxy-4-(trifluoromethyl)-coumarin, a NADPH regenerating system that includes 0.15 mM NADP⁺, 0.38 mM Glucose-6-phosphate and 2.9 unit/ml glucose-6-phosphate dehydrogenase in 170 μ l final volume of 25 mM KPi, pH 7.4, 0.38 mM MgCl₂.

35

Incubations were performed at 37°C for several minutes and 7-hydroxy -4-(trifluoromethyl)-coumarin was used as metabolite standard to determinate the metabolic rate. The excitation and emission wavelengths used were respectively 409 and 530nm.

Example 4: Crystallisation conditions for 2C9-FGloop.

Crystallization of P450 2C9-FGloop was achieved at 10-60 mg/ml protein in 10 mM Potassium phosphate, pH 7.4; 0.5 M KCl; 0.2 mM DTT; 1.0 mM EDTA; 20% glycerol against the conditions listed below. Crystals grew over a two week period in the morphologies indicated.

5

Appearance: Needles and rods

Cell dimensions: $a=161 \text{ \AA}$, $b=161 \text{ \AA}$, $c=110 \text{ \AA}$, $\alpha=90^\circ$, $\beta=90^\circ$, $\gamma=120^\circ$.

Space Group: P321

- 10 0.2 M Sodium Fluoride, 20% PEG 3350
- 0.2 M Potassium Fluoride, 20% PEG 3350
- 0.2 M Ammonium Fluoride, 20% PEG 3350
- 0.2 M Lithium Chloride, 20% PEG 3350
- 0.2 M Magnesium Chloride, 20% PEG 3350
- 15 0.2 M Sodium Chloride, 20% PEG 3350
- 2.0 M Sodium Chloride, 10% PEG 6K
- 0.2 M Calcium Chloride, 20% PEG 3350
- 0.2 M Potassium Chloride, 20% PEG 3350
- 0.2 M Ammonium Chloride, 20% PEG 3350
- 20 0.2 M Lithium Nitrate, 20% PEG 3350
- 0.2 M Magnesium Nitrate, 20% PEG 3350
- 0.2 M Sodium Nitrate, 20% PEG 3350
- 0.2 M Potassium Nitrate, 20% PEG 3350
- 0.2 M Ammonium Nitrate, 20% PEG 3350
- 25 0.2 M Magnesium Formate, 20% PEG 3350
- 0.2 M Sodium Formate, 20% PEG 3350
- 0.2 M Potassium Formate, 20% PEG 3350
- 0.2 M Ammonium Formate, 20% PEG 3350
- 0.2 M Lithium Acetate, 20% PEG 3350
- 30 0.2 M Magnesium Acetate, 20% PEG 3350
- 0.2 M Sodium Acetate, 20% PEG 3350
- 0.2 M Sodium Acetate pH 4.6, 10-20% PEG 4000
- 0.2 M Calcium Acetate, 20% PEG 3350
- 0.2 M Potassium Acetate, 20% PEG 3350
- 35 0.2 M Ammonium Acetate, 20% PEG 3350
- 0.2 M Ammonium Acetate pH 4.6, 10-20% PEG 4000
- 0.2 M Sodium Sulfate, 20% PEG 3350
- 0.2 M Magnesium Sulfate, 20% PEG 3350
- 0.2 M Potassium Sulfate, 20% PEG 3350
- 40 0.2 M Ammonium Sulfate, 20% PEG 3350

- 0.2 M di-Sodium Tartrate, 20% PEG 3350
- 0.2 M Potassium Sodium Tartrate, 20% PEG 3350
- 0.2 M di-Ammonium Tartrate, 20% PEG 3350
- 0.2 M Sodium dihydrogen Phosphate, 20% PEG 3350
- 5 0.2 M di-Sodium hydrogen phosphate dihydrate, 20% PEG 3350
- 0.2 M Potassium dihydrogen Phosphate, 20% PEG 3350
- 0.2 M di-Potassium hydrogen Phosphate, 20% PEG 3350
- 0.2 M Ammonium dihydrogen Phosphate, 20% PEG 3350
- 0.2 M di-Ammonium hydrogen Phosphate, 20% PEG 3350
- 10 0.2 M tri-Lithium Citrate, 20% PEG 3350
- 0.2 M tri-Sodium Citrate, 20% PEG 3350
- 0.2 M tri-Potassium Citrate, 20% PEG 3350
- 15% PEG 1500
- 30% PEG 1500
- 15 0.1 M MES pH 6.0, 5-20% PEG 6000
- 0.1 M MES pH 6.5, 12% PEG 20,000
- 0.1 M Citric acid pH 5.0, 10% PEG 6000
- 0.1 M Sodium Cacodylate, pH 6.6, 10-25% PEG 1500
- 0.1 M Sodium Cacodylate, pH 6.4-6.8, 0.05-0.2 M Magnesium acetate, 10-20% PEG 8000
- 20 0.05-0.1 M Potassium dihydrogen phosphate, 10-20% PEG 8000
- 0.2 M Potassium dihydrogen phosphate, 20% PEG 3000
- 0-0.2 M Sodium Chloride, 0.1 M Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate pH 5.8-6.6, 5-20% PEG 8000
- 0-0.2 M Sodium Chloride, 0.1 M Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate pH 5.8-6.6, 20% PEG 1000
- 25 0-0.2 M Sodium Chloride, 0.1 M Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate pH 5.8-6.6, 20% PEG 3350.
- 0-0.2 M Sodium Chloride, 0.1 M Potassium dihydrogen phosphate/di-Sodium hydrogen phosphate pH 5.8-6.6, 15-20% PEG 5000MME
- 30 0.5 M Ammonium Sulfate, 0.1 M HEPES pH 7.5, 30% 2-Methyl-2,4-pentanediol
- 0.01 M Nickel (II) Chloride, 0.1 M Tris pH 8.5, 20% PEG MME 2000
- 0.05-0.2 M Calcium Acetate, 0.1 M Tris HCl pH 7.0-7.6, 10-22.5% PEG 3000
- 0.1 M phosphate-citrate, pH 4.2, 0.05 M Lithium sulphate, 20% PEG 1000
- 0.025-0.25 M di-potassium hydrogen phosphate, pH 7.0-7.8
- 35 0.2 M di-potassium hydrogen phosphate, pH 8.4, 17.5% PEG 3350
- 0.2 M Ammonium iodide, 20% PEG 3350
- 0.2 M di-Ammonium hydrogen citrate, 20% PEG 3350
- 0.2 M Lithium sulphate, 20% PEG 3350
- 0.05-0.2 M K₂HPO₄, 10% PEG 4000
- 40 0.05-0.2 M K₂HPO₄, 6.25%-20% PEG 3350

- 0.2 M K₂HPO₄, 3.75-25% PEG 3350
- 0.2-0.35 M K₂HPO₄, 20% PEG 3350
- 0.1-0.15 M K₂HPO₄, 10% MPEG 2000
- 0.2M K₂HPO₄, 3.75-10 % MPEG 2000
- 5 0.5 M K₂HPO₄, 10% MPEG 2000
- 0.1-0.15 M K₂HPO₄ , 10% PEG 1000
- 0.2 M K₂HPO₄, 3.75-10% PEG 1000
- 0.5 M K₂HPO₄, 10% PEG 1000
- 0.1M Citrate-HCl pH 5.6, 20% PEG 3000
- 10 0.1 M Tris-HCl pH 7.0, 20% MPEG 2000
- 0.1 M HEPES pH 7.5, 0.2 M sodium chloride, 20% PEG 3000
- 0.1 M Imidazole-HCl pH 8.0, 0.2 M Calcium acetate, 10% PEG 8000
- 0.1 M Imidazole-HCl pH 8.0, 10% Iso-Propanol
- 0.1 M Imidazole-HCl pH 6.5, 0.5 M Sodium acetate
- 15 0.1 M Sodium cacodylate pH 6.6, 20% PEG 3350
- 0.1 M Citrate-HCl pH 5.6, 10% PEG 4000, 10% Isopropanol
- 0.1 M Tris-HCl pH 7.0-7.6, 0.1-0.2 M Calcium acetate, 15-20% PEG 3000
- 0.1 M phosphate-citrate pH 4.2, 0.2 M Lithium sulphate, 10% 2-propanol
- 0.1 M citrate pH 5.5, 0.2 M Lithium sulphate, 15% ethanol
- 20 0.1 M HEPES pH 7.5, 0.2 M Magnesium chloride, 15% ethanol
- 20% PEG 300, 10% Glycerol, 0.1 M Tris pH8.5, 5% PEG 8000

Example 5: Crystallisation conditions for 2C9P220.

- Crystallization of P450 2C9P220 was achieved at 10-60 mg/ml protein in 10 mM Potassium phosphate, pH 7.4; 0.5 M KCl; 0.2 mM DTT; 1.0 mM EDTA; 20% glycerol against the conditions listed below. Crystals grew over a two week period in the morphologies indicated.

Appearance: Spherical clusters

- 30 0.1 M Tris-HCl pH 8.5, 0.2 M sodium acetate, 15% PEG 4000
- 0.1 M Tris-HCl pH 8.5, 4% PEG 8000
- 0.1 M Tri-Sodium Citrate Dihydrate pH 5.6, 10% Iso-PropanolPEG 4000
- 0.1M HEPES pH 7.5, 0.2 M sodium chloride, 20% PEG 3000
- 0.1M Na/K phosphate pH 6.2, 10% PEG 3000
- 35 0.1M Tris pH 7.0, 0.2 M calcium acetate, 20% PEG 3000
- 0.1M Tris pH 8.5, 20% PEG 1000
- 0.1 M HEPES pH 7.5, 0.2 M sodium chloride, 30% PEG 400
- 0.2M di-Sodium tartrate, 20% PEG 3350
- 0.2 M di-Sodium hydrogen phosphate dihydrate, 20% PEG 3350
- 40 0.2 M di-Potassium hydrogen phosphate, 20% PEG 3350

- 0.2 M tri-Lithium citrate, 20% PEG 3350
 0.2 M tri-Sodium citrate, 20% PEG 3350
 0.2 M tri-Potassium citrate, 20% PEG 3350
 0.1M Tris-HCl pH 7.0, 0.2 M Calcium acetate, 20% PEG 3000
 5 0.2 M K₂ H PO₄, 15% PEG 3350
 0.2M K₂ H PO₄, 15% PEG 3350
 0.1M Tris-HCl pH 7.2, 0.2 M Calcium acetate, 20% PEG 3000
 0.1M Tris-HCl pH 7.2, 0.2 M Calcium acetate, 15% PEG 3000
 0.2M K₂ H PO₄, 17.5% PEG 3350
 10 0.2 M K₂ H PO₄, 20%PEG 3350
 0.3M K₂ H PO₄,20%PEG 3350
 0.2 M K₂ H PO₄, 22.5% PEG 3350
 0.2 M K₂ H PO₄, 25% PEG 3350
 0.1M Tris-HCl pH 7.6, 0.2 M Calcium acetate, 20% PEG 3000
 15 0.1 M Tris-HCl pH 7.6, 0.2 M Calcium acetate, 15% PEG 3000
 0.1 M Tri-Sodium Citrate Dihydrate pH 5.0, 5% PEG 4000
 0.1 M HEPES 7.0, 5% PEG 4000
 0.1 M Tris pH 8.0, 5%-15% PEG 4000
 0.1 M Bis-Tris Propane pH 9.0, 5%-10% PEG 4000

20

Example 6: Further production of 2C9-FGloop.

2C9-FGloop was prepared in, and recovered from, a bacterial expression system as described in Example 2(a) above, and subject to further analysis by mass spectroscopy and an activity assay.

25 *Mass Spectroscopy*

Mass spectroscopy was performed using a Bruker "BioTOF" electrospray time of flight instrument. Samples were either diluted by a factor of 1000 straight from storage buffer into methanol/water/formic acid (50:48:2 v/v/v), or subjected to reverse phase HPLC separation using a C4 column. Calibration was achieved using Bombesin and angiotensin I using the 2+
 30 and 1+ charge state. Data were acquired between 200 and 2000 *m/z* range and were subsequently processed using Bruker's X-mass program. Mass accuracy was typically below 1 in 10 000.

Mass spec of 2C9-FGloop: 53967 Da (observed)
 53963.72 Da (predicted)

35

Functionality assays

Activity assays on P450 2C9 were performed in a 96-well plate assay format with a Fluoroscan Ascent FL Instruments (Labsystem), using the methoxy-4-(trifluoromethyl)-coumarin as a fluorescent substrate.

40

Fifteen pmoles of P450 were reconstituted with 0.1 unit of purified human oxidoreductase, in presence of 140 μ M of substrate methoxy-4-(trifluoromethyl)-coumarin, a NADPH regenerating system that includes 0.15 mM NADP⁺, 0.38 mM Glucose-6-phosphate and 2.9 unit/ml glucose-6-phosphate dehydrogenase in 170 μ l final volume of 25 mM KPi, pH 7.4, 0.38 mM MgCl₂.

- 5 Incubations were performed at 37°C for several minutes and 7-hydroxy-4-(trifluoromethyl)-coumarin was used as metabolite standard to determinate the metabolic rate. The excitation and emission wavelengths used were respectively 409 and 530nm. The activity of 2C9-FGloop was 0.110 pmol/min/pmol P450 with 2C9 substrate.

10 **Example 7: Crystals of 2C9-FGloop.**

Crystals of the 2C9-FGloop were grown using the hanging drop vapour diffusion method.

Protein from example 6 at 40mg/ml in 10mM Kpi pH 7.4, 0.5 M KCl, 2mM DTT, 1mM EDTA, 20% glycerol, was mixed in a 1:1 ratio, using 0.5 μ l drops, with a reservoir solution. The crystals of 2C9-FGloop grew over a reservoir solution containing 0.1 M Tris-HCl, pH 8.8; 15%

- 15 PEG 400; 5% PEG 8000; 10% glycerol. Crystals formed within 1-7 days at 25°C, and had morphologies of hexagonal needles and rods. In a first experiment, a first crystal ("1"), was found to have approximate cell dimensions of 161 Å, 161 Å, 110 Å, 90°, 90°, 120°. In a second experiment, a second crystal ("2"), was found to have approximate cell dimensions of 164 Å, 164 Å, 111 Å, 90°, 90°, 120°. This illustrates a typical range of variation within the 5%
20 variability mentioned above.

The crystals were flash frozen in liquid nitrogen, using 80% reservoir solution, 10% PEG 400 and 10% glycerol as a cryoprotectant.

- 25 Data was collected from a 2C9-FGloop crystal to 3.3 Å resolution at beamline ID14.1 (wavelength 0.933 Å) at the European Synchrotron Radiation Source using a Quantum4 CCD detector from a single crystal at 100K. The crystals belong to spacegroup P321. Crystal 1 was found to have cell dimensions 161.35 Å, 161.35 Å, 110.75 Å, 90°, 90°, 120°; in the case of crystal 2 the dimensions were 163.95 Å, 163.95 Å, 111.06 Å, 90°, 90°, 120° and the data were
30 collected to 3.0 Å for the crystal.

Coordinates of Table 1 or 2 can be used to solve the structure of 2C9-FGloop by molecular replacement.

35 **Example 8: Crystallisation and structure analysis of 2C9-FGloop K206E.**

E. coli transformed with the 2C9-FGloop K206E vector described above were grown and described in Example 2.

Protein Purification

The cells were pelleted at 10000 g for 10 min and resuspended in a buffer containing 500 mM KPi, pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 0.1% (v/v) of protease inhibitor cocktail (Calbiochem), 10 mM imidazole, 40U/ml DNase 1 and 5 mM MgSO₄.

5

The cells were lysed by passing twice through a Constant Systems Cell Homogeniser at 12000 psi. The cell debris was then removed by centrifugation at 70000 g at 4°C for 30 min.

10

Detergent IGEPAL CA630 (Sigma) was added dropwise from a 10% stock solution to the lysate at a final concentration of 0.3% (v/v) and the lysate was incubated with previously washed NiNTA resin (Qiagen) overnight at 4°C, using agitation. The protein bound-NiNTA resin was pelleted by centrifugation at 2000 g for 2 min at 4°C. The resin was washed with 20 resin volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 10 mM imidazole, 1:1000 dilution of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630 and the resin pelleted
15 by centrifugation at 2000 xg for 2 min at 4°C. The resin was then washed with 10 resin volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 20 mM imidazole, 0.1% (v/v) protease inhibitors, 0.3% IGEPAL CA630 and the resin recovered by centrifugation as described above.

20

The resin was packed into a column at 4°C and the cytochrome P450 eluted with 500 mM KPi, pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 300 mM imidazole, 0.1% (v/v) of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630.

25

The cytochrome P450 obtained from the NiNTA column by either elution protocol was quickly desalted into 10 mM KPi, pH 7.4, 20% glycerol, 2.0 mM DTT, 1 mM EDTA using a HiPrep 26/10 desalting column (Pharmacia), at a flow rate of 5 ml/min and collecting 17 ml fractions.

30

The desalted cytochrome P450 was directly applied to a CM Sepharose column (Pharmacia), previously equilibrated with 10 mM KPi, pH 7.4, 20% glycerol, 2.0 mM DTT, 1 mM EDTA.
The following step elution was applied: wash with 10 column volumes of 10 mM KPi, pH 7.4, 20% glycerol, 2.0 mM DTT, 1 mM EDTA, wash with the above buffer with 75 mM KCl in order to remove any trace of detergent, then eluted with the above buffer with KCl concentration increased to 500 mM.

35

The protein was concentrated up to 40 mg/ml using a microconcentrator for crystallization assays. To characterize the protein, the quality of the final preparation was evaluated by:

(a) *SDS polyacrylamide gel electrophoresis*

This was performed using commercial gels (Nugen) followed by CBB staining according to the manufacturer's instructions. The purity as estimated by scanning a digital image of a gel was estimated to be at least 95%.

(b) *Mass Spectroscopy*

Mass spectroscopy was performed using a Bruker "BioTOF" electrospray time of flight instrument. Samples were either diluted by a factor of 1000 straight from storage buffer into methanol/water/formic acid (50:48:2 v/v/v), or subjected to reverse phase HPLC separation using a C4 column. Calibration was achieved using Bombesin and angiotensin I using the 2+ and 1+ charge state. Data were acquired between 200 and 2000 m/z range and were subsequently processed using Bruker's X-mass program. Mass accuracy was typically below 1 in 10 000.

Mass spec of 2C9-FGloop-K206E: 53966 Da (observed)
53964.67 Da (predicted)

(c) *Functionality assays*

Activity assays on P450 2C9 were performed in a 96-well plate assay format with a Fluoroscan Ascent FL Instruments (LabSystem), using the methoxy-4-(trifluoromethyl)-coumarin as a fluorescent substrate.

Fifteen pmoles of P450 were reconstituted with 0.1 unit of purified human oxidoreductase, in presence of 140 μ M of substrate methoxy-4-(trifluoromethyl)-coumarin, a NADPH regenerating system that includes 0.15 mM NADP⁺, 0.38 mM Glucose-6-phosphate and 2.9 unit/ml glucose-6-phosphate dehydrogenase in 170 μ l final volume of 25 mM KPi, pH 7.4, 0.38 mM MgCl₂. Incubations were performed at 37°C for several minutes and 7-hydroxy-4-(trifluoromethyl)-coumarin was used as metabolite standard to determinate the metabolic rate. The excitation and emission wavelengths used were respectively 409 and 530 nm. The activity of the 2C9-FGloop-K206E was 0.083 pmol/min/pmol P450 with 2C9 substrate.

Crystallization of 2C9-FGLoop-K206E

Crystals of the 2C9-FGloop-K206E were grown using the hanging drop vapour diffusion method. Protein at 40mg/ml in 10mM Kpi pH 7.4, 0.5 M KCl, 2mM DTT, 1mM EDTA, 20% glycerol, was mixed in a 1:1 ratio, using 0.5 μ l drops, with a reservoir solution. The crystals of 2C9-FGloop-K206E grew over a reservoir solution containing 0.2 M dibasic potassium phosphate and 20% PEG 3350 (Alternative conditions were also used, which were 0.1 M Tris-HCl, pH 8.5; 0.2 M LiSO₄; 15% PEG 4000). Crystals formed within 1-7 days at 25°C, and had morphologies of hexagonal needles and rods. The approximate cell dimensions of the crystals were 165 Å, 165 Å, 112 Å, 90°, 90°, 120°. The crystals were flash frozen in liquid nitrogen, using 80% reservoir solution, 10% PEG 400 and 10% glycerol as a cryoprotectant.

Example 9: Structure of 2C9-FGloop K206E.

- Data was collected from a 2C9-FGloop-K206E crystal (prepared as described in Example 8) to 3.0 Å resolution at beamline ID14.1 (wavelength 0.933 Å) at the European Synchrotron Radiation Source using a Quantum4 CCD detector from a single crystal at 100K. A total of 90 one degree oscillation images were collected and processed using MOSFLM 6.11 (Leslie, A. G. W. (1992). *Jnt CCP4/ESF-EACMB Newslett. Protein Crystallogr.* 26), scaled using SCALA 4.1, and reduced using the CCP4 suite of programs (Collaborative Computational Project, Number 4, (1994). *The CCP4 suite: programs for protein crystallography. Acta Cryst.* D50, 760-763).

Table of data statistics

Resolution	15-3.0 Å	3.16-3.0 Å
Completeness (%)	99.4	98.7
Multiplicity	5.2	4.8
I/Sigma(I)	3.5	1.3
Rmerge (%)	12.7	54.2

- The crystals belong to spacegroup P321 and have cell dimensions 165.46 Å, 165.46 Å, 111.70 Å, 90°, 90°, 120°. There are two copies in the asymmetric unit, and the crystals have a solvent content of 68%. The structure was solved by molecular replacement using the 2C5 structure (pdbid 1DT6) (Williams, P A; Cosme, J; Sridhar, V; Johnson, E F; McRee, D E, *Molecular Cell, Volume 5, Issue 1, January 2000, Pages 121-131*) and the program AMORE (Navaza, J. (1994). *AMoRe: an automated package for molecular replacement. Acta Cryst.* A50, 157-163), giving a correlation coefficient of 67.8% and an R-factor of 38.9%. The coordinates of the structure are set out in Table 1. The two copies in the asymmetric unit are related by a rotation of 145° about the Z-axis. The initial maps (both averaged and unaveraged) were relatively clean, and containing unmistakable electron density for the heme group which was omitted from the search model. This solution was using as a starting point for refinement using the program CNX (*ibid*).

Example 10: Further crystallisation of 2C9-FGloop K206E.*Bacteria Expression*

- A single ampicillin resistant colony of XL1 blue cells transformed with the 2C9-FGloop K206E-expressing plasmid described above was grown overnight at 37°C in Terrific Broth (TB) with shaking to near saturation and used to inoculate fresh TB media. Bacteria were grown to an OD_{600nm} = 0.4 in 1 litre of TB broth containing 100 µg/ml of ampicillin at 37°C at 185 rpm in 2 litre flask. The heme precursor delta aminolevulinic acid (80 mg/l) was added 30 min prior to induction with 1 mM isopropyl-β-D-thiogalactopyranoside (IPTG) and the temperature lowered to 25°C. The bacterial culture was continued under agitation at 25°C for 72 hours.

Protein Purification

The cells were pelleted at 10000 g for 10 min and resuspended in a buffer containing 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 0.1% (v/v) of protease inhibitor cocktail (Calbiochem), 10 mM imidazole, 40 U/ml DNase 1 and 5 mM MgSO₄.

5

The cells were lysed by passing twice through a Constant Systems Cell Homogeniser at 10000 psi. The cell debris was then removed by centrifugation at 22000 x g at 4°C for 30 min.

10 Detergent IGEPAL CA630 (Sigma) was added dropwise from a 10% stock solution to the lysate at a final concentration of 0.3% (v/v) and the lysate was incubated with previously washed NiNTA resin (Qiagen) overnight at 4°C, using agitation. The protein bound-NiNTA resin was pelleted by centrifugation at 2000 g for 2 min at 4°C. The resin was washed with 30 resin volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 10 mM imidazole, 1:1000 dilution of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630 and the resin pelleted
15 by centrifugation at 2000 xg for 2 min at 4°C. The resin was then washed with 15 resin volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 20 mM imidazole, 0.1% (v/v) protease inhibitors, 0.3% IGEPAL CA630 and the resin recovered by centrifugation as described above.

20 The resin was packed into a column at 4°C and the cytochrome P450 eluted with 500 mM KPi, pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 300 mM imidazole, 0.1% (v/v) of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630.

The cytochrome P450 obtained from the NiNTA column was quickly desalted into 10 mM KPi,
25 pH 7.4, 20% glycerol, 2.0 mM DTT, 1 mM EDTA using a HiPrep 26/10 desalting column (Pharmacia), at a flow rate of 5 ml/min.

The desalted cytochrome P450 was directly applied to a CM Sepharose column (Pharmacia), previously equilibrated with 10 mM KPi, pH 7.0, 20% glycerol, 2.0 mM DTT, 1 mM EDTA.
30 The following step elution was applied: wash with 20 column volumes of 10 mM KPi, pH 7.0, 20% glycerol, 2.0 mM DTT, 1 mM EDTA, wash with the above buffer with 75 mM KCl in order to remove any trace of detergent, then eluted with the above buffer with KCl concentration increased to 500 mM.

35 The protein was concentrated up to 40 mg/ml using a microconcentrator for crystallization assays.

Crystallization of 2C9-FGloop K206E

Crystals of the 2C9-FGloop-K206E were grown using the hanging drop vapour diffusion
40 method. Protein at 40 mg/ml in 10mM Kpi pH 7.0, 0.5 M KCl, 2mM DTT, 1mM EDTA, 20%

glycerol, was mixed in a 1:1 ratio, using 0.5 μ l drops, with a reservoir solution. The crystals of 2C9-FGloop-K206E were grown over a reservoir solution containing: 0.1 M Tris-HCl pH 8.4, 15% PEG 400, 5% PEG 8000, 10% glycerol.

- 5 Rod shaped crystals formed within 1 day at 25°C. The crystals were flash frozen in liquid nitrogen, using the reservoir solution as a cryoprotectant. The approximate cell dimensions of the crystals were 164.9 Å, 164.9 Å, 111.1 Å, $\alpha = 90^\circ$, $\beta = 90^\circ$, $\gamma = 120^\circ$.

Example 11: Production of a 2.6 Å resolution structure of 2C9-FGloop K206E

- 10 Data was collected to 2.6 Å resolution from a crystal of 2C9-FGloop-K206E crystal (prepared as described in Example 4) at beam line 14.1 at the European Synchrotron Radiation Facility, using a Quantum4 CCD detector from a single crystal at 100 K. The crystal was grown against a reservoir solution of 0.1M Tris pH 8.4, 15% PEG 400, 5% PEG 8000, 10% Glycerol, and was frozen directly from the reservoir solution. A total of 50 images were collected and processed
15 using MOSFLM (Leslie, A. G. W. (1992). *Jnt CCP4/ESF-EACMB Newslett. Protein Crystallogr.* 26), scaled using SCALA and reduced using the CCP4 suite of programs (Collaborative Computational Project, Number 4, (1994). *The CCP4 suite: programs for protein crystallography. Acta Cryst. D50*, 760-763).

- 20 Table of data statistics

Resolution	50-2.6 Å	2.74-2.60 Å
Completeness	96.5%	84.3%
Multiplicity	2.6	2.0
I/ Sigma I	6.8	1.2
R merge	8.7	57.0

- This data was used in refinement, using the model generated by the refinement against the initial 3.0 Å data, to generate the coordinates of Table 2. A consistent set of 5% of the reflections was flagged for Free R calculation, and extended to the higher resolution. The refinement was
25 continued using the programs CNX (Brunger et al., *Current Opinion in Structural Biology*, Vol. 8, Issue 5, October 1998, 606-611, and commercially available from Accelrys, San Diego, CA) and REFMAC (Collaborative Computational Project, Number 4, (1994). *The CCP4 suite: programs for protein crystallography. Acta Cryst. D50*, 760-763), to an R factor of 21.9% and an R free factor 25.0%.

- 30

Example 12: Structure of 2C9-FGloop.

- Data were collected from a 2C9-FGloop crystal 2 (prepared as described in Example 7) to 3.1 Å resolution at beamline ID14.1 (wavelength 0.933 Å) at the European Synchrotron Radiation Source using a Quantum4 CCD detector from a single crystal, frozen directly from the
35 crystallisation solution (0.1 M Tris-HCl pH 8.8, 15% PEG 400, 5% PEG 8000, 10% glycerol) at

100K. The crystal belong to space group P321. Crystal 2 was found to have cell dimensions 163.95 Å, 163.95 Å, 111.06 Å, 90°, 90°, 120°.

- 5 A total of 100 degrees of data were collected, processing using MOSFLM, scaled using SCALA and reduced further using the CCP4 suite of programs. The structure of 2C9-FGloop was solved by molecular replacement using the program AMORE and the 2.6 Å 2C9-FGloop-K206E structure (Table 2) as a search model. The structure was refined using strict non-crystallographic symmetry using the program CNX to generate the coordinates of Table 3. The final structure has an R factor of 26.8% and a Free R factor of 29.8% for all data between 30 and 10 3.1 Å.

Table of data statistics:

Resolution	R merge	Completeness	Mult	I/Sig I
9.80	0.041	96.8	3.0	15.0
6.93	0.056	99.8	3.1	8.0
5.66	0.101	99.8	3.1	6.5
4.90	0.113	99.8	3.1	5.3
4.38	0.117	98.4	2.8	5.4
4.00	0.118	92.1	2.4	5.2
3.71	0.141	80.4	2.0	4.1
3.47	0.183	71.7	1.8	1.4
3.27	0.242	65.1	1.7	2.4
3.10	0.374	58.7	1.7	1.7
Overall	0.099	81.9	2.4	5.0

Example 13: Identification and use of P450 binding pocket residues.

- 15 The crystal structure for 2C9 has for the first time allowed the precise identification of all the residues that line the binding site of the enzyme (Table 4). Some residues proposed to be in the catalytic site by a variety of sources can now be shown not to be binding pocket residues but residues that hold the catalytic residues in place.

20 Table 4: All residues lining the 2C9 binding pocket

ARG 97	GLY 98	ILE 99	PHE 100	LEU 102	ALA 103
ALA 106	ASN 107	GLY 109	PHE 110	GLY 111	ILE 112
VAL 113	PHE 114	THR 167	PHE 168	ILE 178	CYS 179
ILE 181	ILE 182	MET 198	LEU 201	ASN 202	ASN 204
ILE 205	LEU 208	SER 209	SER 210	PRO 211	ILE 213
GLN 214	ASN 217	LEU 233	VAL 237	MET 240	LYS 241
ASN 289	VAL 292	ASP 293	LEU 294	PHE 295	GLY 296
ALA 297	GLY 298	THR 299	GLU 300	THR 301	THR 302
SER 303	THR 304	THR 305	ARG 307	ASP 360	LEU 361
LEU 362	PRO 363	THR 364	SER 365	LEU 366	PRO 367
ASN 474	GLY 475	PHE 476	ALA 477	SER 478	VAL 479

Residues previously inferred to be in the binding site of 2C9 from modelling (e.g. homology modelling, SRS proposals, 3D/4D-QSAR, sequence alignments, or mutagenesis studies) which

with the aid of the crystal structure are now known to line the 2C9 binding pocket are in Table 5.

Table 5: Residues previously inferred to be in the binding site of 2C9

ARG 97	GLY 98	ILE 99	PHE 100	LEU 102	ALA 103
ALA 106	ASN 107	GLY 109	PHE 110	GLY 111	ILE 112
VAL 113	PHE 114	LEU 201	ASN 202	ASN 204	ILE 205
LEU 208	SER 209	SER 210	GLN 214	LEU 233	VAL 237
MET 240	LYS 241	ASN 289	VAL 292	ASP 293	LEU 294
PHE 295	GLY 296	ALA 297	GLY 298	THR 299	GLU 300
THR 301	THR 302	SER 303	THR 304	THR 305	ARG 307
ASP 360	LEU 361	LEU 362	PRO 363	THR 364	SER 365
LEU 366	PRO 367	ASN 474	GLY 475	PHE 476	ALA 477
SER 478					

Some residues found in the binding pocket have never before been identified as binding site residues. These are listed in Table 6. The identification of these will greatly facilitate the modelling of compound binding.

Table 6: Residues newly identified as lining the 2C9 binding pocket

THR 167	PHE 168	ILE 178	CYS 179	ILE 181	ILE 182
MET 198	PRO 211	ILE 213	ASN 217	VAL 479	

Accordingly, in a preferred aspect of the invention, the selected coordinates used in a method of the invention will comprise at least one coordinate, preferably at least one side-chain coordinate of an amino acid residue selected from either Table 5 or 6.

Preferably, the selected coordinates include the coordinates of all the atoms of Table 1, 2, 3 or 8 relating to at least one amino acid from Table 5 or 6.

Also preferred, whether all or just some atoms of a particular amino acid are selected, is that at least 2, more preferably at least 5, and most preferably at least 10 of the selected coordinates are of side chain residues from the corresponding number of different amino acid residues. These may be selected exclusively from either of Table 5 or 6, or a combination thereof. Preferably at least one side chain residue coordinate of Table 6 is included.

Example 14: Modelling other P450 structures.

Some of the residues in Tables 5 and 6 are residues which do not occur at the sequence positions indicated in the Tables in a naturally occurring human 2C9 or are residues which differ in other human P450 structures. For these residues in particular, molecular modelling techniques (including but not limited to molecular replacement or computer assisted semi-manual methods) may be used to obtain a model in which a different residue is provided at such a location. For example, position 206 (recited in Table 5 above) in the protein 2C9-FGloop is lysine, which

comprises a positive charge. Using the X-ray diffraction data of the 2C9-FGloopK206E we have modelled the 2C9-FGloop protein to provide coordinate data for this protein.

The coordinate data corresponds to Table 1 apart from the data for residue 206, which is as follows:

ATOM	1328	N	LYS A 206	-9.209	86.411	32.115	1.00	52.64	A	N
ATOM	1329	CA	LYS A 206	-8.030	86.236	32.948	1.00	53.62	A	C
ATOM	1330	CB	LYS A 206	-6.751	86.197	32.104	1.00	56.05	A	C
ATOM	1331	CG	LYS A 206	-6.295	84.776	31.762	1.00	60.03	A	C
ATOM	1332	CD	LYS A 206	-7.406	83.981	31.026	1.00	61.59	A	C
ATOM	1333	CE	LYS A 206	-7.093	82.478	30.921	1.00	62.61	A	C
ATOM	1334	NZ	LYS A 206	-6.906	81.756	32.235	1.00	63.34	A	N
ATOM	1335	C	LYS A 206	-7.966	87.351	33.963	1.00	52.66	A	C
ATOM	1336	O	LYS A 206	-7.663	87.117	35.125	1.00	52.36	A	O

It will be observed that the CB carbon atom, i.e. the first carbon atom in the side-chain is in an almost identical position to the Glu CB carbon atom of Table 1, whereas the remaining atoms of the side chain (CD, CE & NZ) are in locations based upon a low-energy configuration of the lysine side chain, taking into account the connection of the side chain to the CA carbon atom. It is thus relatively simple for a person skilled in the art of molecular modelling to arrive at a model for a P450 in which one or more residues of the 2C9-FGloopK206E is replaced in an analogous manner. The coordinate data for 2C9-FGloop are set out in Table 3. It will be appreciated by those of skill in the art that in the space group P321 it is possible to index diffraction data in one of two ways. The data can be converted from one indexing to the other using the operator k, h, -l. In the case of 2C9-FGloop K206E at 3.0 Å (Table 1) the data were indexed differently compared to the data of 2C9-FGloop K206E at 2.6 Å (Table 2) or 2C9-FGloop (Table 3), and hence while the crystal forms of the proteins are substantially identical, the crystal structures are not in the same absolute space. Hence the co-ordinate data for Glu206 in Table 3 is not numerically equivalent to that shown above as this modelled in Table 1. Those of skill in the art will be able to convert the above data for residue 206 accordingly.

Thus where in modelling the interaction of a compound or a metabolite thereof with a P450 structure of the invention, it is found that the residue at position 206 may be involved in the interaction with that particular metabolite, the above data for residue 206 may be used in Table 1 in place of the data for 206Glu. This is in view of the change of charge which results from the difference. For compounds or metabolites which are found to interact with other regions of P450, there may be no need to amend Table 1 in this manner.

However, similar modelling may be performed for other parts of P450 where it is determined to be important that the potential interactions of a compound with the binding pocket in those parts of the protein is of particular interest. Thus the residues Pro220, Ala221, Leu222 and Leu223 in particular were remodelled in a similar manner to that discussed above in order to predict the coordinates of wild type residue side chains in a P450 structure.

The modelled coordinates of the 2C9 wild type protein are the same as those contained in Table 1, 2, 3 or 8 except that the residues listed in Table 7 substitute for the corresponding residues of Table 1, 2, 3 or 8.

5

Thus the present invention covers a structure of 2C9 for use *in silico* in which the coordinates are those of Table 1, 2, 3 or 8, except that the atoms and corresponding coordinates of one or more of residues 215, 216, 220, 221, 222, and 223 are substituted by the atoms and corresponding coordinates of the wild typed residues of Table 7. Thus to the extent that
10 previous aspects of the invention relate to Table 1, 2, 3 or 8, they also relate to Table 1, 2, 3 or 8 with the atoms and corresponding coordinates of one or more of residues 215, 216, 220, 221, 222, and 223 substituted by those of the wild typed residues listed in Table 7.

Example 15: Docking Experiment.

15 The crystal structure of 2C9 was used to computationally dock a drug molecule into the binding pocket. The drug diclofenac, a known substrate for human 2C9, was generated and placed into the 2C9 binding pocket using interactive computer graphics. The observed interactions can now be used to chemically modify diclofenac via a structure-based design strategy to mediate its interaction with human 2C9 and improve its therapeutic potential.

20

Example 16: Refinement of 2C9-FGloop K206E structure.

Data generated in Example 11 was further refined to generated Table 8 (Figure 5). A total of 147 water molecules have been added (manually and automatically) and included in the refinement. This resulted in an Rfactor of 20.7% and a R free factor of 25.9%.

25

Example 17: Production of further 2C9 proteins.

The nucleic acid encoding 2C9trunc, 2C9P220 (also called 1072), 2C9-FGloop (1015) and 2C9-FGloop K206E (1155) were used to produce further 2C9-encoding nucleic acids using either cassette mutagenesis (CM) or site-directed mutagenesis (QC). Site-Directed Mutagenesis (PCR
30 mutagenesis) was performed using the Stratagene Quikchange™ mutagenesis kit (catalogue number #200518), according to manufacturers instructions. The Quikchange™ mutagenesis method generates a mutated plasmid with staggered nicks and uses DpnI digestion to remove all parental DNA. Reactions were made incorporating 5.0 µL of 10X reaction buffer, 5-50 ng template plasmid DNA, 1.0 µL dNTP mix and 125 ng oligonucleotide primers. The primers and
35 template used for each construct are as listed in the table below.

Reactions were made to 50 µL with sterile water, 2.5U Pfu Turbo was then added and the reaction overlayed with 30 µL mineral oil. Thermocycling was then carried out as follows: 95°C, 30 sec (1 cycle), 95°C, 30 sec, 55°C, 1 min, 68°C 13.5 min (18 cycles) and finally a

holding period at 4°C. A control reaction was also included with water in place of oligonucleotide primers. Following thermocycling 10 U DpnI was added, under the level of the mineral oil, to each reaction. The reactions were then gently mixed followed by centrifugation in a bench top microcentrifuge, 1 min, 13,000 rpm and incubated at 37°C for 3 hr.

5

Digested product (1 µL) was then used to transform 50 µL competent *E. coli* XL1-Blue cells (Stratagene). The whole transformation as then plated onto Luria agar plates containing 100 µg/ml carbenicillin, inverted, and incubated overnight at 37°C. Plasmid DNA was prepared from individual colonies and sequenced to check for the insertion of the correct mutation(s).

10

Cassette mutagenesis was performed on the 2C9 FG region (residues 215 to 226) utilising the BamHI and XmaI sites, two unique and natural restriction sites that are present in this region. Complementary oligonucleotides with the 5' BamHI and 3' XmaI overhang restriction sites were designed to introduce mutations in the FG region (Tables 9, 10 and 14). Double stranded oligonucleotides were prepared by heating 10 µg of a mixture of complementary Oligonucleotides at 100°C for 5 min in 100 µl of water and slow cooling at 25°C. Double stranded Oligonucleotides were ligated into purified plasmid pCW-2C9 wt opened by *Bam*HI and *Xma*I restriction enzymes and an aliquot of the ligation was used to transform X11 Blue *E. coli*.

20

2C9 proteins of the invention produced by the above methods are set out in Table 9, which also indicates the primers used. Crystals of all these proteins were obtained under a variety of conditions, shown in Table 11 (see Example 20).

25

As controls, 2C9 proteins without proline at 220 were made using the same techniques. The proteins made are shown in Table 10. Under a range of conditions tested, no protein crystals were recovered.

Table 9. Further 2C9 Proteins of the invention.

Clone	Mutations	Primers (SEQ ID NOs)	Template	Cloning strategy
1078	2C9 S220P	Fw 5'ccagatc'gcaataatttcgcctatcatgatgattctccc3' (125) Rev 5'ggctagacgtttataaagcgcgatagtaactaatgaaggg3' (126)	2C9 trunc	QC
1081	2C9-FGloop + N466D	Fw 5'cctctggtagcccaagagccttgacaccctccag3' (127) Rev 5'ctggagtggtgcgaagcgctcttggtggaaccagag3' (128)	2C9-FGloop	QC
1082	2C9-FGloop + F482S	Fw 5'gctctggcgccctctaccagcgtgcttcatt3' (129) Rev 5'aatgaagcacagc'ggttagggggcgccagagagc3' (130)	2C9-FGloop	QC
1085	2C9-FGloop + Q192E	Fw 5'gcgcttgattataaaga'gagcaattcttaacttaatggaaaag3' (131) Rev 5'ctttccattaaagtaagaataatgcctcattatatacaaaagcgc3' (132)	2C9-FGloop	QC
1097	2C9-FGloop + Q193E	Fw 5'gattataaagalcaggaattcttaactaatggaaaag3' (133) Rev 5'ctttccattaaagtaagaataatgcctcattatatacaaaagcgc3' (134)	2C9-FGloop	QC
1100	2C9-FGloop + E253K	Fw 5'gtaaaagaacacaaataatcaatggacatgaacaacccctc3' (135) Rev 5'gaggggtgttcattgccatgatttgggtctttttac3' (136)	2C9-FGloop	QC
1101	2C9-FGloop + K273Q	Fw 5'ccctgatgaatggagcaggaaaagcacaccaccc3' (137) Rev 5'ggttggtgtgcttctctctcatttcacagg3' (138)	2C9-FGloop	QC
1102	2C9-FGloop + K275DH276D	Fw 5'gatgaatggagaggaagagcagacacacacatcgaattac3' (139) Rev 5'taaatcagatgggtgggtgtctctctctcatttcac3' (140)	2C9-FGloop	QC
1115	2C9-FGloop + E415A	Fw 5'catcacttctggagcagggtggcgaatttaagaaaag3' (141) Rev 5'ctttctaaatggccaccctgcacccagaaagtgatg3' (142)	2C9-FGloop	QC
1116	2C9-FGloop + K465A	Fw 5'cctgaaatcttggttgaccaccaggaaccttgaccacc3' (143) Rev 5'gtggtgcgaaggttcgtggtgacaccagagatttcagg3' (144)	2C9-FGloop	QC
1117	2C9-FGloop + K48A	Fw 5'cctacagataggtattgcggacatcagcaaatcttaacc3' (145) Rev 5'ggtaaggattgtc'gattgctcgcaatacctatctctgagg3' (146)	2C9-FGloop	QC
1118	2C9-FGloop + K160A	Fw 5'catcacttctggagcagggtggcgaatttaagaaaag3' (147) Rev 5'ctttctaaatggccaccctgcacccagaaagtgatg3' (148)	2C9-FGloop	QC
1121	2C9-FGloop + K273A	Fw 5'gatgaatggagcgggaaaagcacaccacac3' (149) Rev 5'gattggtgtgtgctttccctcatttcac3' (150)	2C9-FGloop	QC
1122	2C9-FGloop + E81A	Fw 5'gtggtctgcagatagatgcagcagtgaggaagccc3' (151) Rev 5'gggtctctcactgctgcatatcatcatgacaccac3' (152)	2C9-FGloop	QC
1123	2C9-FGloop + K118AK119AK121A	Fw 5'gttttcagcaatggagcggcgatggcgagatccggcg3' (153) Rev 5'gcccggatccgcagcgcgcctccattcgaaac3' (154)	2C9-FGloop	QC
1165	2C9-FGloop + del HI loop	Fw 5'ggaggaagaaagcactctgaatttactatgaagctgg3' (155) Rev 5'ccaagctttcaatagtaaatcagatgctttctctcc3' (156)	2C9-FGloop	QC

Clone	Mutations	Primers (SEQ ID NOs)	Template	Cloning strategy
1220	2C9 S220P P221S	Fw 5' gatcgcataattttctctatcattgatttc3' (157) Rev 5' gaagtaataatgataaggaataattatgagatc3' (158)	2C9 trunc	QC
1319	2C9-FGloop + L71S	Fw 5' ggttcactctgattttgctcgaacccatagtggtgc3' (159) Rev 5' gcaccataatggttcgagcccaataatagagagacac3' (160)	2C9-FGloop	QC
1339	2C9-FGloop + Y243F	Fw 5' cgtgtctttatgaagaagttttatggaagaaagtaaaagaaacac3' (161) Rev 5' ggtgtctttatgataatggaagaaatcttataaaagcaacg3' (162)	2C9-FGloop	QC
1340	2C9-FGloop + E81A Y243F	Fw 5' ggtgtctgcatgataatgagcagcaggaaggaagccc3' (163) Rev 5' ggtgtctgcatgataatgagcagcaggaaggaagccc3' (164)	2C9-FGloop	QC
1361	2C9 C216Y S220P	Fw 5' ggtgtctttatgataatggaagaaatcttataaaagcaacg3' (165) Rev 5' ggtgtctttatgataatggaagaaatcttataaaagcaacg3' (166)	2C9 trunc	CM
1362	2C9 I215V S220P	Fw 5' gatccagattacaataatccctctctctctgattttc3' (167) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgaaatc3' (168)	2C9 trunc	CM
1363	2C9 I215V C216Y	Fw 5' gatccagattacaataatccctctctctctgattttc3' (169) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (170)	2C9 trunc	CM
1364	2C9 I215V C216Y	Fw 5' gatccagattacaataatccctctctctgattttc3' (171) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (172)	2C9 trunc	CM
1366	2C9 S220P P221A	Fw 5' gatccagattacaataatccctctctctgattttc3' (173) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (174)	2C9 trunc	CM
1367	2C9 S220P P221A	Fw 5' gatccagattacaataatccctctctctgattttc3' (175) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (176)	2C9 trunc	CM
1368	2C9 S220P P221A	Fw 5' gatccagattacaataatccctctctctgattttc3' (177) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (178)	2C9 trunc	CM
1369	2C9 I215V C216Y	Fw 5' gatccagattacaataatccctctctctgattttc3' (179) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (180)	2C9 trunc	CM
1370	2C9 I215V S220P	Fw 5' gatccagattacaataatccctctctctgattttc3' (181) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (182)	2C9 trunc	CM
1371	2C9 C216Y S220P	Fw 5' gatccagattacaataatccctctctctgattttc3' (183) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (184)	2C9 trunc	CM
1372	2C9 C216S S220P	Fw 5' gatccagattacaataatccctctctctgattttc3' (185) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (186)	2C9 trunc	CM
1391	2C9-FGloop + N258H	Fw 5' gatccagattacaataatccctctctctgattttc3' (187) Rev 5' ccgggaataatcaatgagagcagcaggaataattatgagacc3' (188)	2C9-FGloop	QC
1392	2C9-FGloop + Q252H	Fw 5' caatggacatgcacaccc3' (189) Rev 5' gaggtgtgcatgtccat3' (190) Fw 5' gnaaagaacacatgaatcaatgagacatg3' (191) Rev 5' caigccatgattcattggtgtttttac3' (192)	2C9-FGloop	QC

Clone	Mutations	Primers (SEQ ID NOs)	Template	Cloning strategy
1394	2C9-FGloop + Q484H	Fw 5'gccgcccttcacacacctgtcttc3' (193) Rev 5'gaagcagaggtggtagaaggcgcc3' (194)	2C9-FGloop	QC
1396	2C9-FGloop + Q340S	Fw 5'ggagcccttcacacacctgtcttc3' (195) Rev 5'ggctctgtctcctcagcagggcgcc3' (196)	2C9-FGloop	QC
1397	2C9-FGloop + E415V E438I	Fw 5'ccctcactcttctgtgtgtggcgaatttaag3' (197) Rev 5'cttaaaattgccaccacacacacagagatgaggg3' (198) Fw 5'ggattgtgtgggaatccctctggcggcaggg3' (199) Rev 5'ccatggcgccagggcgattccacacacac3' (200)	2C9-FGloop	QC
1424	2C9 P221A I222P	Fw 5'gac'tgcaaatatttctccctcattgattacttccgggaac3' (201) Rev 5'gttcccgggaagtaataatggagcagaaaattatgcagatc3' (202)	2C9 trunc	QC
1443	2C9-FGloop + R329N Q484H	Fw 5'ccaggaagagattgaaatgtagttggc3' (203) Rev 5'gccaatcaatttcaatctctctgg3' (204) Fw 5'gccgcccttcacacacctgtcttc3' (205) Rev 5'gaagcagaggtggtagaaggcgcc3' (206)	2C9-FGloop	QC
1444	2C9-FGloop + K206H E415V	Fw 5'gaatgaataacacacacatttggcagccccc3' (207) Rev 5'ggggctgcataaattggaggttttcac3' (208) Fw 5'ccctcactcttctgtgtgtggcgaatttaag3' (209) Rev 5'cttaaaattgccaccacacacacagagatgaggg3' (210)	1155	QC
1475	2C9-FGloop + K206E N231H	Fw 5'ccgggaactcaccacaaatttctaaacg3' (211) Rev 5'cggttaagtaatttgggtgagttcccg3' (212)	1155	QC
1477	2C9-FGloop + K206E F100S	Fw 5'ctggaagagcattagccctcggcgtgaag3' (213) Rev 5'cttcagcaggtgggtaatgcctctccag3' (214)	1155	QC
1491	2C9-FGloop + K206E L208A	Fw 5'gaaacatcgagatgcagcagcccggtgatcc3' (215) Rev 5'ggatccagggcgctcgcgaatcgaatttcc3' (216)	1155	QC

Table 10. Control 2C9 Proteins.

Clone	Mutations	Primers (SEQ ID NOs)	Template	Cloning strategy
1039	2C9 P221A	Fw 5'cctgagcagatcgaataatttctgtatcattgattactccgggaactatc3' (217) Rev 5'gatagttccgggaagtaataatgtagcagaaaattatgcagatcggatccagg3' (218)	2C9 trunc	QC
1365	2C9 I215V C216Y P221A I222L I223L	Fw 5'gacccaggtctacataatttctctctctctgattttc3' (219) Rev 5'ccgggaataatacaaggagcagagaataattatgtagacc3' (220)	2C9 trunc	CM
1423	2C9 F219P P221A	Fw 5'gacccagatcgaataatctctctgtatcattgattactcc3' (221) Rev 5'ggaagtaataatgtagcagagaattatgcagatctggatc3' (222)	2C9 trunc	QC

Example 18: Production of 2C9 proteins.*Bacteria Expression.*

The 2C9 proteins of Example 17 were produced in a bacterial expression system. A single
5 ampicillin resistant colony of XL1 blue cells was grown overnight at 37°C in Terrific Broth
(TB) with shaking to near saturation and used to inoculate fresh TB media. Bacteria were
grown to an OD_{600nm} = 0.4 in 1 litre of TB broth containing 100 µg/ml of ampicillin at 37°C at
185 rpm in 2 litre flask. The heme precursor delta aminolevulinic acid (80 mg/l) was added 30
min prior to induction with 1 mM isopropyl-β-D-thiogalactopyranoside (IPTG) and the
10 temperature lowered to 25°C. The bacterial culture was continued under agitation at 25°C for 72
hours.

Protein Purification

The cells were pelleted at 10000 g for 10 min and resuspended in a buffer containing 500 mM
15 KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 0.1% (v/v) of protease inhibitor cocktail
(Calbiochem), 10 mM imidazole, 40 U/ml DNase 1 and 5 mM MgSO₄.

The cells were lysed by passing twice through a Constant Systems Cell Homogeniser at 10000
psi. The cell debris was then removed by centrifugation at 22000 x g at 4°C for 30 min.

20 Detergent IGEPAL CA630 (Sigma) was added dropwise from a 10% stock solution to the lysate
at a final concentration of 0.3% (v/v) and the lysate was incubated with previously washed
NiNTA resin (Qiagen) overnight at 4°C, using agitation. The protein bound-NiNTA resin was
pelleted by centrifugation at 2000 g for 5 min at 4°C. The resin was washed with 30 resin
25 volumes of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 10 mM imidazole,
1:1000 dilution of protease inhibitor cocktail, 0.3%(v/v) IGEPAL CA630 and the resin pelleted
by centrifugation at 2000 xg for 5 min at 4°C. The resin was then washed with 15 resin volumes
of 500 mM KPi, pH 7.4, 20% glycerol, 10 mM mercaptoethanol, 20 mM imidazole, 0.1% (v/v)
protease inhibitors, 0.3% IGEPAL CA630 and the resin recovered by centrifugation as
30 described above.

The resin was packed into a column at 4°C and the cytochrome P450 eluted with 500 mM KPi,
pH 7.4, 20 % glycerol, 10 mM mercaptoethanol, 300 mM imidazole, 1:1000(v/v) of protease
inhibitor cocktail, 0.3%(v/v) IGEPAL CA630.

35

The cytochrome P450 obtained from the NiNTA column was quickly desalted into 10 mM KPi,
pH 7.4, 20% glycerol, 2.0 mM DTT, 1 mM EDTA using a HiPrep 26/10 desalting column
(Pharmacia), at a flow rate of 5 ml/min.

The desalted cytochrome P450 was directly applied to a CM Sepharose column (Pharmacia), previously equilibrated with 10 mM KPi, pH 7.4, 20% glycerol, 2.0 mM DTT, 1 mM EDTA. The following step elution was applied: wash with 20 column volumes of 10 mM KPi, pH 7.4, 20% glycerol, 2.0 mM DTT, 1 mM EDTA, wash with the above buffer with 75 mM KCl in order to remove any trace of detergent, then eluted with the above buffer with KCl concentration increased to 500 mM.

The protein was concentrated up to 40 mg/ml using a microconcentrator for crystallization assays. The quality of the final preparation was evaluated by:

10

(a) SDS polyacrylamide gel electrophoresis

This was performed using commercial gels (Nugen) followed by CBB staining according to the manufacturer's instructions. The purity as estimated by scanning a digital image of a gel was estimated to be at least 95%.

15

(b) Mass Spectroscopy

Mass spectrometry was performed using a Bruker BioTOF II electrospray time of flight instrument. Samples were either diluted by a factor of 1000 straight from storage buffer into methanol/water/formic acid (50:48:2 v/v/v), or subjected to a reverse phase separation using a C4 Millipore 'zip-tip' or a C4 HPLC column, before being diluted into methanol/water/formic acid. Calibration was achieved by measurement of the 2+ and 1+ charge states of a peptide mixture containing Bombesin and angiotensin I or by using the multiple charge states of Horse Myoglobin. Data were acquired in the m/z range 200 to 2000 and were subsequently processed using Bruker's X-mass program. Mass accuracy was expected to be better than 1 in 10 000 (100ppm).

25

Predicted and observed mass spectrometry data for the proteins is listed in Table 12.

Table 12. Mass Spectrometry Data for 2C9 proteins.

Clone ID	Calculated Mass (without N-met) (Da)	Observed Mass (Da)	Mass Diff (without N-met) (ppm)
1015	53964	53966.65	2.65
1039	53907.96	53911.25	3.29
1072	53948.02	53950.23	2.21
1078	53944.03	53944	-0.03
1081	53964.98	53967	2.02
1082	53903.9	53909	5.1
1085	53964.98	53964.95	-0.03
1097	53964.98	53971	6.02
1100	53963.06	53971	7.94
1101	53963.96	53965	1.04
1102	53928.86	53930.37	1.51

Clone ID	Calculated Mass (without N-met) (Da)	Observed Mass (Da)	Mass Diff (without N-met) (ppm)
1115	53905.96	53905	-0.96
1116	53906.9	53910	3.1
1117	53906.9	53909	2.1
1118	53906.9	53907	0.1
1121	53906.9	53910	3.1
1122	53905.96	53908	2.04
1123	53792.72	53795.16	2.44
1155	53964.94	53964.84	-0.1
1165	53624.65	53627	2.35
1220	53933.99	53936.03	2.04
1319	53937.92	53942.38	4.46
1339	53948	53953	5
1340	53889.96	53892	2.04
1361	53978.03	53978.83	0.8
1362	53903.97	53901.62	-2.35
1363	53964	53964.32	0.32
1364	53964	53966.32	2.32
1365	53953.96	53955.22	1.26
1366	53918	53920.06	2.06
1367	53918	53919.31	1.31
1368	53918	53900.75	33.02
1369	53964	53964.08	0.08
1370	53903.97	53907.52	3.55
1371	53978.03	53978.74	0.71
1372	53901.93	53901.83	-0.1
1391	53987.04	53987.61	0.57
1392	53973.01	53975.41	2.4
1394	53973.01	53973.65	0.64
1396	53922.95	53924.21	1.26
1397	53918.06	53914.83	-3.23
1423	53857.9	53858.94	1.04
1424	53891.92	53891.92	0
1443	53930.93	53932.6	30.97
1444	53942.98	53943.2	0.22
1475	53987.98	53988.71	0.73
1477	53904.84	53907.07	2.23
1491	53922.86	53923.9	1.04

Example 19: Activity of 2C9 Proteins of the invention.

Activity assays on P450 2C9 were performed in a 96-well plate assay format with a Fluoroscan Ascent FL Instruments (Labsystem), using the 7-methoxy-4-(trifluoromethyl)-coumarin as a fluorescent substrate.

Fifteen pmoles of purified P450 were reconstituted with 0.1 unit of purified human oxidoreductase, in presence of 137 μ M of substrate 7-methoxy-4-(trifluoromethyl)-coumarin

- and a NADPH regenerating system that includes 0.14 mM NADP⁺, 0.37 mM Glucose-6-phosphate, 0.38 mM MgCl₂ and 2.8 unit/ml glucose-6-phosphate dehydrogenase, in 180 µl final volume of 25 mM KPi, pH 7.4. Incubations were performed at 37°C for 40 minutes and 37.5 pmoles of metabolite standard 7-hydroxy -4-(trifluoromethyl)-coumarin were used to
- 5 determinate the metabolic rate. The excitation and emission wavelengths used were respectively 409 and 530 nm. The results for the clones tested are set out in Table 13.

Table 13. Activity Data.

Clone	Activity
1015 (2C9-FGloop)	0.26
1072 (2C9-P220)	0.43
1361	0.68
1362	0.33
1363	0.27
1364	0.15
1366	0.27
1367	0.56
1368	0.52
1369	0.43
1370	0.69
1371	0.17
1372	0.20

- 10 As a control, the activity of the protein 2C9trunc (wild type) and 1365 (which both have no proline at 220) was determined and found to be 0.47 and 0.43, respectively.

Example 20: Crystallisation of 2C9 proteins.

Crystals of the 2C9 mutants were grown using the hanging drop vapour diffusion method.

- 15 Protein at 10-60 mg/ml (usually 40 mg/ml) in 10mM Kpi pH 7.4, 0.5 M KCl, 2mM DTT, 1mM EDTA, 20% glycerol, was mixed in a 1:1 ratio, using 0.5 µl drops, with a reservoir solution. A number of different 2C9 proteins of the invention formed crystals under the following reservoir solution conditions:
- 0.05-0.1 M Tris-HCl pH 8.0-8.8, 0.1-0.2 M Lithium sulphate, 10-15% PEG 4000;
- 20 0.1 M Tris pH 8.0-8.8, 15-30% PEG 400, 5% PEG 8000, 10% glycerol; and
- 0.1-0.4 M KH₂PO₄, 0-25 % PEG 3350, 0-10% glycerol.

- Further reservoir solutions containing the conditions listed in Table 11 (Figure 6) were also used to obtain further crystals of various different 2C9 proteins of the invention. In Table 11,
- 25 crystallisation of the clones identified by clone number was obtained by using a reservoir solution containing the constituent parts listed in the columns, wherein these are as follows:
- Buffer (M)-Molarity of buffer (in M).
- Buffer-Buffer type.
- pH-pH of buffer used.
- 30 Salt (M)-Molarity of salt (in M).

Salt-Salt type.

Ppt (M)-Molarity of precipitant (in M).

Ppt-Precipitant type.

Ppt 2 (M)-Molarity of precipitant 2 (in M).

5 Ppt 2-Precipitant 2 used.

Add M-Molarity of additive (in M).

Additive-Additive used.

Example 21: 2C9-2C19 Chimeras.

10 Seven further 2C9 proteins were generated which were based upon substitution into 2C9 of residues found in 2C19. Three chimeras (1661, 1662 and 1664) were generated by site directed mutagenesis as described in Example 17 above and using the primers listed below in Table 14. The four other chimeras, 1595, 1600, 1610 and 1632 were generated by cloning methods as follows:

15

Chimera 1595

The mutant 1155 I99H was first generated by the QuikchangeTM mutagenesis method, using the oligonucleotides listed in Table 14. Residues 227 to 339 were then substituted in the construct 1155 I99H by those present in cytochrome P450 2C19 (clone 1026) by cloning the XmaI/SphI
20 339-bp DNA fragment of 2C19 into the plasmid pCW-1155 I99H that was opened by the same restriction enzymes, to yield the chimera 1595.

Chimera 1600

Chimera 1600 was yielded from chimera 1595 by substituting residues 1 to 282 by those found
25 in the 1155 I99H construct. A silent restriction site *EcoRI* (underlined) was introduced into the 1155 I99H construct at position 784 by PCR amplification using the following
5' oligonucleotides: 5'cttcaatagtgaattcagatggttggtgtgc3' (SEQ ID NO:226) and
5'tatggctaagaaaacgagctctaaagggc3' (SEQ ID NO:225) with the *EcoRI* restriction site
underlined. A total of 28 cycles at 94 °C for 30 sec, 55 °C for 1 min, and 72 °C for 1 min were
30 followed by an extension of 10 min at 72 °C. The 795-bp PCR fragment was double digested with *NotI/EcoRI* and purified by agarose gel extraction and elution. The *NotI/EcoRI* DNA fragment was then cloned into the plasmid 1595 opened by the *NotI/EcoRI* restriction enzymes to yield the 1155 I99H/1595 chimera. Finally, the L362I change was introduced in the 1155 I99H/1595 chimera by the QuikchangeTM mutagenesis method, using the oligonucleotides listed
35 in Table 14, to yield the chimera 1600.

Chimera 1610

Chimera 1610 was yielded from the construct 1155 by substituting residues 215 to 328 by those found in the chimera 1600. The BamHI/AffIII DNA fragment was isolated from the chimera

1600 and cloned into the plasmid pCW-1155 opened with the BamHI/AffIII restriction enzymes.

Chimera 1632

- 5 The construct 1632 was yielded from the chimera 1600 by substituting residues 329 to 476 in 1600 by those found in the construct 1155. The AffIII/SalI DNA fragment was isolated from the construct 1155 and cloned into the plasmid pCW-1600 opened with the AffIII/SalI restriction enzymes. Table 14 sets out the chimeras.

10 Table 14. 2C9-2C19 chimeras

Clone	Mutations	Primers (SEQ ID NOs)
1595	2C9-FGloop + K206E I99H V237L K241E Y243D M257I Q261R M269I H276Q P279Q S286N E288V N289I V292A F295L I331V	Fw 5'ctggaagaggccattccactggctgaaag3' (223) Rev 5'cttcagccagtgaggaaatggcctctccag3' (224)
1600	2C9-FGloop + K206E I99H S286N E288V N289I V292A F295L L362I I331V	Fw 5'tatggctaagaaaacgagctctaaagggc3' (225) Rev 5'cttcaatagtgattcagatgggtgtgtgc3' [EcoRI] (226) Fw 5'gagatacattgacctattcccaccagcctgc3' [L362I] (227) Rev 5'gcaggctggtgggaataaggtcaatgtatctc3' (228)
1610	2C9-FGloop + K206E S286N E288V N289I V292A F295L	(see text)
1632	2C9-FGloop + K206E I99H S286N E288V N289I V292A F295L	(see text)
1661	2C9-FGloop + K206E I99H S286N N289I	Fw 5'ctgaattactattgaaaactggaaatcactgcagttgactgtttgg3' (229) Rev 5'ccaacaagtcaactgcagtgattccaagttttcaatagtaaatcag3' (230)
1662	2C9-FGloop + K206E S286N	Fw 5'gaattactattgaaaactggaaaacactgcagttg3' (231) Rev 5'caactgcagttgtttccaagttttcaatagtaaatc3' (232)
1664	2C9-FGloop + K206E S286N N289I	Fw 5'gaattactattgaaaactggaaaacactgcagttg3' (233) Rev 5'caactgcagttgtttccaagttttcaatagtaaatc3' (234) Fw 5'ctattgaaagctggaaatcactgcagttgacttg3' (235) Rev 5'caagtcaactgcagtgattccaagctttcaatag3' (236)

Example 22: Production of 2C9-2C19 chimeras.

These protein were produced as described above for the 2C9 proteins of Example 18 above.

- 15 Predicted and observed mass spectrometry data for the proteins is listed in Table 15.

Table 15. Mass Spectrometry for 2C9 proteins.

Clone ID	Calculated Mass (without N-met) (Da)	Observed Mass (Da)	Mass Diff (without N-met) (ppm)
1595	53889.79	53891.6	1.81
1600	53908.92	53907.07	-1.85
1610	53898.97	53900.75	1.78
1632	53922.95	53922.27	-0.68
1661	54015	54018.32	3.32
1662	53991.97	53997.11	5.14
1664	53908.92	53910.93	37.29

Example 23: Validation of 2C9-FGloop K206E.

The substrate specificity of 2C9-FGloop K206E was characterized by performing metabolic assays with diclofenac as substrate, in combination with inhibition assays with six substrates/inhibitors of 2C9 reported in the literature

The 4-diclofenac hydroxylase assays (Figure 11), determined following the method described by Mancy *et al.*, (Biochemistry (1999) 38, 14264-14270) indicate that the K_m value of 2C9-FGloop K206E mutant for diclofenac is similar to that obtained for the native N-truncated 2C9, and falls within the range of values reported in the literature for the native full-length 2C9. However, cytochrome P450 2C9-FGloop K206E exhibits a two-fold lower V_{max} value that may reflect altered interactions with its redox partner. Results from the inhibition studies (Table 16) also indicate that the inhibition profile of 2C9-FGloop K206E is unchanged when compared to the native N-truncated enzyme, with K_i and IC_{50} values that match closely those reported in the literature.

These results, altogether, clearly demonstrate that the mutations introduced in the FG loop region to promote the crystallization of 2C9 do not change the substrate specificity, nor do they modify the integrity of the substrate-binding pocket. Therefore, 2C9-FGloop K206E represents a suitable model of the native 2C9 to study the binding mode of chemical compounds into the active site.

Table 16. Activity of 2C9-FGloop K206E (1155)

Compound	2C9 Published data (μM)	2C9trunc IC_{50}/K_i (μM)	2C9-FGloop K206E IC_{50}/K_i (μM)
Bisphenol A	$K_m=4$	4.8/2.9	7.8/3.3
Fluoxetine	$K_i=13$	1.5/1.5	2.1/4.1
Phenytoin	$K_i=6$	250/116	40/62
Sulfaphenazole	$K_i=0.5$ to 1.6	0.4/0.9	1.6/0.93
4 Phenyl Imidazole	NA	3/1.6	2.8/1.2
Fluvoxamine	$K_i=2-5$	0.6/0.7	0.4/0.85

Example 24: Activity of 2C9-2C19 Chimeras.

The substrate specificity of the proteins made in Example 22 was characterized by performing inhibition assays with six substrates/inhibitors of 2C19 and 2C9 reported in the literature.

- 5 The activity and inhibition assays were performed on the 2C9-2C19 chimeric proteins and the results are shown in Table 17.

Table 17. Activity of 2C9-2C19 chimeras.

	AA differences	7-MFC (min-1)	Sulfaphenazole Ki (μM)	Diclofenac Ki (μM)	Piroxicam Ki (μM)	4-Phenyl Imidazole Ki (μM)	Fluvoxamine Ki (μM)
1155	-	0.23	1	4	30	3	0.4
2C19 (published)	43	2.98	>500	231	133	0.5	1.5
1595	15	3.2					
1600	8	3.3	>500	>200	>100	1	<1
1632	6	3.31	>500	>200	>100	1.1	1.6
1661	3	2.14	>500	>200	>100	0.9	0.5

- 10 As can be seen 1632 and 1661 display 2C19-like activity. Hence, a 2C9-2C19 chimera can also be made by making the following changes I99H S286N E288V N289I V292A F295L. An alternative minimal mutant is I99H S286N N289I.

Example 25: Crystallisation of 2C9-2C19 chimeric proteins.

- 15 Crystals were prepared as described in Example 20 above. The crystals were grown over a reservoir solution containing the following conditions:
 0.05-0.1 M Tris-HCl pH 8.0-8.8, 0.1-0.2 M Lithium sulphate, 10-15% PEG 4000;
 0.1 M Tris pH 8.0-8.8, 15-30% PEG 400, 5% PEG 8000, 10% glycerol; and
 0.1-0.4 M KH₂PO₄, 0-25 % PEG 3350, 0-10% glycerol; and also the conditions listed in Table
 20 11 (Figure 6).

Example 26: Homology Modelling of 2C19.

- Using homology modelling, a model of the 2C19 protein was produced. The model was constructed from an alignment of the 2C9 template structure and the target sequence using
 25 CLUSTALW. The alignments were adjusted with information from the PSIPRED secondary structure program and optimised manually. The program MODELLER was used to build and optimise the three-dimensional models, with the final model being the one which had the lowest energy and closely satisfied the restraints generated by the program. The 2C19 model produced is set out in Table 18 (Figure 7).

Example 27: Homology modelling of 2C18.

This was performed by determining the residues that differ in 2C18 from 2C19 and using the techniques described above in Example 25 to determine the coordinates of those residues.

5 These coordinates, set out in Table 19 (Figure 8), may be substituted into the 2C9 or 2C19 coordinate tables.

Example 28: Homology modelling of 2C8.

This was performed by determining the residues that differ in 2C8 from 2C19 and using the techniques described above in Example 25 to determine the coordinates of those residues.

10 These coordinates, set out in Table 20 (Figure 9), may be substituted into the 2C9 or 2C19 coordinate tables.

Summary

15 While the invention has been described in conjunction with the exemplary embodiments described above, many equivalent modifications and variations will be apparent to those skilled in the art when given this disclosure. Accordingly, the exemplary embodiments of the invention set forth are considered to be illustrative and not limiting. Various changes to the described embodiments may be made without departing from the spirit and scope of the invention.

Claims:

1. A P450 2C9 protein comprising residues 31 to 490 of the wild type sequence and which comprises the following changes:
position 220 or position 222 is proline;
optionally up to 30 other positions are altered;
and wherein the region N-terminal to position 31 is other than wild-type.
2. The protein of claim 1 wherein position 221 is not proline.
3. The protein of claim 1 or 2 wherein said up to 30 other positions are altered to introduce residues found in the corresponding position in another cytochrome P450 molecule.
4. The protein of claim 3 wherein said another cytochrome P450 molecule is selected from the group consisting of 2C19, 2C18 and 2C8.
5. The protein of claim 1 which is selected from the group consisting of SEQ ID NO:(2x+2), wherein x is an integer from 1 to 52.
6. The protein of any one of the preceding claims in crystal form.
7. A crystallisable composition comprising a 2C9 P450 protein complexed to a ligand.
8. A crystal of P450 2C9 protein having a trigonal space group P321.
9. The crystal of claim 8 with unit cell dimensions selected from the group:
a = b = 165.46 Å ± 5%, and c = 111.70 Å ± 5%;
a = b = 161.35 Å ± 5%, and c = 110.75 Å ± 5%; and
a = b = 163.95 Å ± 5%, and c = 111.06 Å ± 5%.
10. A crystal of P450 2C9 protein having a resolution better than 3.1 Å.
11. A crystal of P450 protein having the structure defined by the co-ordinates of Table 1, 2, 3 or 8.
12. A method of making P450 2C9 protein crystals which method comprises the hanging drop vapour-diffusion technique, using a precipitant solution comprising 0-0.2 M Tris-HCl (pH 8-9), 0-0.25 M Li₂SO₄, 0-20% PEG 4000.
13. A computer-based method for the analysis of the interaction of a molecular structure with a P450 structure, which comprises:

providing the P450 structure of Table 1, 2, 3, 8 or 18 or selected coordinates thereof;
providing a molecular structure to be fitted to said P450 structure or selected coordinates thereof; and
fitting the molecular structure to said P450 structure.

14. The method of claim 13 wherein said selected coordinates include atoms from one or more of the residues of Table 4.
15. The method of claim 14 wherein at least one of said atoms is from a residue of Table 6.
16. The method of any one of claims 13 to 15 which further comprises the steps of:
obtaining or synthesising a compound which has said molecular structure; and
contacting said compound with P450 protein to determine the ability of said compound to interact with the P450.
17. The method of any one of claims 13 to 15 which further comprises the steps of:
obtaining or synthesising a compound which has said molecular structure;
forming a complex of a 2C9 P450 protein and said compound; and
analysing said complex by X-ray crystallography to determine the ability of said compound to interact with the P450.
18. The method of any one of claims 13 to 15 which further comprises the steps of:
obtaining or synthesising a compound which has said molecular structure; and
determining or predicting how said compound is metabolised by said P450 structure; and
modifying the compound structure so as to alter the interaction between it and the P450.
19. A compound having the modified structure identified using the method of claim 18.
20. A method of predicting three dimensional structures of P450 homologues or analogues of unknown structure, the method comprises the steps of:
aligning a representation of an amino acid sequence of a target P450 protein of unknown three-dimensional structure with the amino acid sequence of the P450 of Table 1, 2, 3, 8 or 18 to match homologous regions of the amino acid sequences;
modelling the structure of the matched homologous regions of said target P450 of unknown structure on the corresponding regions of the P450 structure as defined by Table 1, 2, 3, 8 or 18; and
determining a conformation for said target P450 of unknown structure which substantially preserves the structure of said matched homologous regions.

21. The method of claim 20 wherein said target P450 protein is selected from the group consisting of 2C8, 2C18 and 2C19.
22. A chimaeric protein having a binding cavity which provides a substrate specificity substantially identical to that of P450 2C9 protein,
wherein the chimaeric protein binding cavity is lined by a plurality of atoms which correspond to selected P450 2C9 atoms lining the P450 2C9 binding cavity, the relative positions of said plurality of atoms corresponding to the relative positions, as defined by Table 1, 2, 3 or 8, of said selected P450 2C9 atoms.
23. A method for determining the structure of a protein, which method comprises;
providing the co-ordinates of Table 1, 2, 3, 8 or 18 or selected coordinates thereof, and
either (a) positioning said co-ordinates in the crystal unit cell of said protein so as to provide a structure for said protein, or (b) assigning NMR spectra peaks of said protein by manipulating said co-ordinates.
24. A method for determining the structure of a compound bound to P450 protein, said method comprising:
providing a crystal of P450 protein;
soaking the crystal with the compound to form a complex; and
determining the structure of the complex by employing the data of Table 1, 2, 3, 8 or 18 or a portion thereof.
25. A method for determining the structure of a compound bound to P450 protein, said method comprising:
mixing P450 protein with the compound;
crystallizing a P450 protein-compound complex; and
determining the structure of the complex by employing the data of Table 1, 2, 3, 8 or 18 or a portion thereof.
26. A method of assessing the ability of a compound to interact with P450 2C9 protein which comprises:
obtaining or synthesising said compound;
forming a crystallised complex of a P450 2C9 protein and said compound, said complex diffracting X-rays for the determination of atomic coordinates of said complex to a resolution of better than 3.1 Å; and
analysing said complex by X-ray crystallography to determine the ability of said compound to interact with the P450 2C9 protein.

27. A computer system, intended to generate structures and/or perform optimisation of compounds which interact with P450, P450 homologues or analogues, complexes of P450 with compounds, or complexes of P450 homologues or analogues with compounds, the system containing computer-readable data comprising one or more of:

(a) atomic coordinate data according to Table 1, 2, 3, 8 or 18, said data defining the three-dimensional structure of P450 or at least selected coordinates thereof;

(b) structure factor data for P450, said structure factor data being derivable from the atomic coordinate data of Table 1, 2, 3, 8 or 18;

(c) atomic coordinate data of a target P450 protein generated by homology modelling of the target based on the data of Table 1, 2, 3, 8 or 18;

(d) atomic coordinate data of a target P450 protein generated by interpreting X-ray crystallographic data or NMR data by reference to the data of Table 1, 2, 3, 8 or 18; and

(e) structure factor data derivable from the atomic coordinate data of (c) or (d).

28. A computer system according to claim 27, wherein said atomic coordinate data is for at least one of the atoms provided by the residues of Table 4.

29. A computer system according to claim 27 or 28 comprising:

(i) a computer-readable data storage medium comprising data storage material encoded with said computer-readable data;

(ii) a working memory for storing instructions for processing said computer-readable data; and

(iii) a central-processing unit coupled to said working memory and to said computer-readable data storage medium for processing said computer-readable data and thereby generating structures and/or performing rational drug design.

30. A computer system according to claim 29 further comprising a display coupled to said central-processing unit for displaying said structures.

31. A method of providing data for generating structures and/or performing optimisation of compounds which interact with P450, P450 homologues or analogues, complexes of P450 with compounds, or complexes of P450 homologues or analogues with compounds, the method comprising:

(i) establishing communication with a remote device containing computer-readable data comprising at least one of: (a) atomic coordinate data according to Table 1, 2, 3, 8 or 18, said data defining the three-dimensional structure of P450, or the coordinates of a plurality of atoms of P450; (b) structure factor data for P450, said structure factor data being derivable from the atomic coordinate data of Table 1, 2, 3, 8 or 18; (c) atomic coordinate data of a target P450 homologue or analogue generated by homology modelling of the target based on the data of Table 1, 2, 3, 8 or 18; (d) atomic coordinate data of a protein generated by interpreting X-ray

crystallographic data or NMR data by reference to the data of Table 1, 2, 3, 8 or 18; and (e) structure factor data derivable from the atomic coordinate data of (c) or (d); and

(ii) receiving said computer-readable data from said remote device.

32. A computer-readable storage medium comprising a data storage material encoded with computer-readable data, wherein the data are defined by:

(a) atomic coordinate data according to Table 1, 2, 3, 8 or 18, said data defining the three-dimensional structure of P450 or at least selected coordinates thereof;

(b) structure factor data for P450, said structure factor data being derivable from the atomic coordinate data of Table 1, 2, 3, 8 or 18;

(c) atomic coordinate data of a target P450 protein generated by homology modeling of the target based on the data of Table 1, 2, 3, 8 or 18;

(d) atomic coordinate data of a target P450 protein generated by interpreting X-ray crystallographic data or NMR data by reference to the data of Table 1, 2, 3, 8 or 18; and

(e) structure factor data derivable from the atomic coordinate data of (c) or (d).

33. A computer-readable storage medium according to claim 32, wherein said atomic coordinate data is for at least one of the atoms provided by the residues of Table 4.

34. A computer-readable storage medium, comprising a data storage material encoded with computer readable data, wherein the data are defined by all or a portion of the structure coordinates of the P450 protein of Table 1, 2, 3, 8 or 18, or a homologue of P450, wherein said homologue comprises backbone atoms that have a root mean square deviation from the backbone atoms of Table 1, 2, 3, 8 or 18 of not more than 2.0 Å.

35. A computer-readable storage medium comprising a data storage material encoded with a first set of computer-readable data comprising a Fourier transform of at least a portion of the structural coordinates for the P450 protein according to Table 1, 2, 3, 8 or 18; which data, when combined with a second set of machine readable data comprising an X-ray diffraction pattern of a molecule or molecular complex of unknown structure, using a machine programmed with the instructions for using said first set of data and said second set of data, can determine at least a portion of the structure coordinates corresponding to the second set of machine readable data.

36. A nucleic acid comprising a sequence coding for the 2C9 protein of any one of claims 1 to 5.

37. A vector comprising the nucleic acid of claim 36 operably linked to a promoter.

38. A host cell carrying the vector of claim 37.

39. A method of making the protein of any one of claims 1 to 5 comprising culturing the host cell of claim 38. under conditions to express the protein, and recovering the protein.
40. The method of claim 39 which comprises:
- (a) expressing in a host cell culture said cytochrome 2C9 P450 molecule;
 - (b) recovering said cells from said culture and suspending said cells in salt buffer having a conductivity of from 12 to 110 mS/cm;
 - (c) lysing said cells and removing cell debris to provide a high-salt lysate;
 - (d) adding detergent to said lysate (for example 0.015% to 1.2% v/v) to provide a high-salt-detergent lysate;
 - (e) recovering said P450 from said lysate.
41. The method of claim 40 wherein step (e) is performed by:
- (e(i)) binding said 2C9 P450 to an affinity support;
 - (e(ii)) rinsing said support in a high-salt-detergent wash;
 - (e(iii)) removing said 2C9 P450 in a high-salt-detergent buffer to provide a P450-high-salt-detergent preparation; followed by
 - (f) exchanging the buffer to a low ionic strength buffer without detergent by size-exclusion chromatography to provide a P450-low-salt preparation.
42. The method of claim 41 which further comprises crystallising the protein.
43. The method of claim 42 wherein the protein is crystallised by the hanging drop method of claim 12 to provide a crystal.
44. The method of claim 43 which further comprises obtaining an X-ray diffraction pattern of the crystal.
45. Use of the atomic coordinate data or selected coordinates thereof of any one of Tables 1, 2, 3, 8 or 18 for the provision of a computer-generated structure of a cytochrome P450 molecule bound to a ligand.

Figure 1

Table 1

ATOM	1	CB	PRO	A	30	-35.689	87.020	61.932	1.00	76.79	A	C
ATOM	2	CG	PRO	A	30	-37.155	86.821	61.522	1.00	77.60	A	C
ATOM	3	C	PRO	A	30	-34.403	87.007	59.756	1.00	73.52	A	C
ATOM	4	O	PRO	A	30	-34.732	85.846	59.559	1.00	73.18	A	O
ATOM	5	N	PRO	A	30	-36.326	88.579	60.199	1.00	77.30	A	N
ATOM	6	CD	PRO	A	30	-37.563	88.163	60.888	1.00	77.81	A	C
ATOM	7	CA	PRO	A	30	-35.157	87.870	60.780	1.00	75.82	A	C
ATOM	8	N	PRO	A	31	-33.382	87.580	59.095	1.00	71.70	A	N
ATOM	9	CD	PRO	A	31	-32.994	88.996	59.228	1.00	72.56	A	C
ATOM	10	CA	PRO	A	31	-32.546	86.922	58.087	1.00	70.15	A	C
ATOM	11	CB	PRO	A	31	-31.447	87.951	57.828	1.00	71.10	A	C
ATOM	12	CG	PRO	A	31	-32.166	89.233	57.967	1.00	72.05	A	C
ATOM	13	C	PRO	A	31	-31.974	85.608	58.589	1.00	67.98	A	C
ATOM	14	O	PRO	A	31	-31.700	85.468	59.774	1.00	67.76	A	O
ATOM	15	N	GLY	A	32	-31.794	84.653	57.683	1.00	65.66	A	N
ATOM	16	CA	GLY	A	32	-31.254	83.368	58.080	1.00	63.13	A	C
ATOM	17	C	GLY	A	32	-29.964	83.490	58.871	1.00	61.36	A	C
ATOM	18	O	GLY	A	32	-29.252	84.482	58.719	1.00	62.17	A	O
ATOM	19	N	PRO	A	33	-29.642	82.506	59.731	1.00	59.37	A	N
ATOM	20	CD	PRO	A	33	-30.530	81.363	59.991	1.00	58.87	A	C
ATOM	21	CA	PRO	A	33	-28.447	82.429	60.580	1.00	58.22	A	C
ATOM	22	CB	PRO	A	33	-28.484	80.994	61.081	1.00	58.60	A	C
ATOM	23	CG	PRO	A	33	-29.936	80.761	61.245	1.00	59.87	A	C
ATOM	24	C	PRO	A	33	-27.163	82.735	59.812	1.00	57.40	A	C
ATOM	25	O	PRO	A	33	-27.114	82.572	58.592	1.00	57.48	A	O
ATOM	26	N	THR	A	34	-26.122	83.156	60.523	1.00	56.01	A	N
ATOM	27	CA	THR	A	34	-24.866	83.503	59.868	1.00	56.18	A	C
ATOM	28	CB	THR	A	34	-24.976	84.896	59.164	1.00	59.00	A	C
ATOM	29	OG1	THR	A	34	-23.680	85.318	58.718	1.00	60.40	A	O
ATOM	30	CG2	THR	A	34	-25.519	85.963	60.137	1.00	59.99	A	C
ATOM	31	C	THR	A	34	-23.663	83.582	60.783	1.00	53.95	A	C
ATOM	32	O	THR	A	34	-23.773	83.964	61.939	1.00	55.62	A	O
ATOM	33	N	PRO	A	35	-22.486	83.226	60.275	1.00	51.24	A	N
ATOM	34	CD	PRO	A	35	-22.098	82.599	59.005	1.00	50.33	A	C
ATOM	35	CA	PRO	A	35	-21.357	83.338	61.185	1.00	50.88	A	C
ATOM	36	CB	PRO	A	35	-20.242	82.599	60.448	1.00	48.93	A	C
ATOM	37	CG	PRO	A	35	-20.598	82.782	58.993	1.00	49.16	A	C
ATOM	38	C	PRO	A	35	-21.067	84.830	61.376	1.00	51.60	A	C
ATOM	39	O	PRO	A	35	-20.726	85.520	60.412	1.00	52.24	A	O
ATOM	40	N	LEU	A	36	-21.222	85.324	62.607	1.00	52.00	A	N
ATOM	41	CA	LEU	A	36	-20.980	86.731	62.924	1.00	52.00	A	C
ATOM	42	CB	LEU	A	36	-20.773	86.942	64.422	1.00	53.80	A	C
ATOM	43	CG	LEU	A	36	-22.001	86.709	65.283	1.00	55.78	A	C
ATOM	44	CD1	LEU	A	36	-21.705	87.157	66.711	1.00	57.16	A	C
ATOM	45	CD2	LEU	A	36	-23.182	87.482	64.700	1.00	55.66	A	C
ATOM	46	C	LEU	A	36	-19.786	87.313	62.213	1.00	50.83	A	C
ATOM	47	O	LEU	A	36	-18.657	86.809	62.332	1.00	50.33	A	O
ATOM	48	N	PRO	A	37	-20.026	88.397	61.468	1.00	49.37	A	N
ATOM	49	CD	PRO	A	37	-21.395	88.892	61.243	1.00	48.29	A	C
ATOM	50	CA	PRO	A	37	-19.069	89.161	60.680	1.00	49.26	A	C
ATOM	51	CB	PRO	A	37	-19.956	89.856	59.664	1.00	48.32	A	C
ATOM	52	CG	PRO	A	37	-21.176	90.137	60.452	1.00	47.64	A	C
ATOM	53	C	PRO	A	37	-18.313	90.137	61.545	1.00	51.09	A	C
ATOM	54	O	PRO	A	37	-18.907	90.950	62.258	1.00	51.17	A	O
ATOM	55	N	VAL	A	38	-16.998	90.031	61.518	1.00	53.50	A	N
ATOM	56	CA	VAL	A	38	-16.204	90.936	62.297	1.00	56.11	A	C
ATOM	57	CB	VAL	A	38	-14.744	90.464	62.337	1.00	55.60	A	C
ATOM	58	CG1	VAL	A	38	-14.027	90.850	61.053	1.00	54.50	A	C
ATOM	59	CG2	VAL	A	38	-14.069	91.040	63.558	1.00	57.08	A	C
ATOM	60	C	VAL	A	38	-16.373	92.230	61.493	1.00	58.12	A	C
ATOM	61	O	VAL	A	38	-16.594	92.183	60.279	1.00	57.75	A	O
ATOM	62	N	ILE	A	39	-16.322	93.377	62.159	1.00	60.26	A	N
ATOM	63	CA	ILE	A	39	-16.527	94.630	61.449	1.00	62.14	A	C
ATOM	64	CB	ILE	A	39	-16.553	95.821	62.401	1.00	64.13	A	C
ATOM	65	CG2	ILE	A	39	-17.306	96.976	61.731	1.00	65.47	A	C
ATOM	66	CG1	ILE	A	39	-17.235	95.426	63.721	1.00	66.46	A	C
ATOM	67	CD1	ILE	A	39	-17.314	96.567	64.762	1.00	69.35	A	C
ATOM	68	C	ILE	A	39	-15.492	94.899	60.371	1.00	61.66	A	C
ATOM	69	O	ILE	A	39	-14.290	94.837	60.617	1.00	62.26	A	O
ATOM	70	N	GLY	A	40	-15.977	95.199	59.173	1.00	61.42	A	N
ATOM	71	CA	GLY	A	40	-15.090	95.475	58.065	1.00	61.48	A	C
ATOM	72	C	GLY	A	40	-15.082	94.381	57.018	1.00	60.99	A	C

Figure 1

ATOM	73	O	GLY	A	40	-14.912	94.690	55.838	1.00	60.73	A	O
ATOM	74	N	ASN	A	41	-15.277	93.122	57.432	1.00	59.93	A	N
ATOM	75	CA	ASN	A	41	-15.271	91.980	56.506	1.00	59.44	A	C
ATOM	76	CB	ASN	A	41	-13.832	91.695	56.088	1.00	58.18	A	C
ATOM	77	CG	ASN	A	41	-12.814	92.469	56.926	1.00	57.75	A	C
ATOM	78	OD1	ASN	A	41	-12.783	92.364	58.144	1.00	57.04	A	O
ATOM	79	ND2	ASN	A	41	-11.979	93.257	56.259	1.00	57.26	A	N
ATOM	80	C	ASN	A	41	-15.880	90.696	57.076	1.00	60.68	A	C
ATOM	81	O	ASN	A	41	-16.599	90.720	58.069	1.00	62.04	A	O
ATOM	82	N	ILE	A	42	-15.593	89.575	56.418	1.00	62.47	A	N
ATOM	83	CA	ILE	A	42	-16.012	88.223	56.853	1.00	62.55	A	C
ATOM	84	CB	ILE	A	42	-17.440	87.843	56.418	1.00	61.21	A	C
ATOM	85	CG2	ILE	A	42	-17.414	87.351	54.973	1.00	63.41	A	C
ATOM	86	CG1	ILE	A	42	-17.963	86.702	57.313	1.00	59.37	A	C
ATOM	87	CD1	ILE	A	42	-19.467	86.475	57.267	1.00	55.41	A	C
ATOM	88	C	ILE	A	42	-15.017	87.277	56.159	1.00	63.22	A	C
ATOM	89	O	ILE	A	42	-15.087	86.054	56.284	1.00	61.16	A	O
ATOM	90	N	LEU	A	43	-14.094	87.909	55.434	1.00	65.03	A	N
ATOM	91	CA	LEU	A	43	-13.024	87.281	54.678	1.00	66.62	A	C
ATOM	92	CB	LEU	A	43	-11.987	88.349	54.321	1.00	66.27	A	C
ATOM	93	CG	LEU	A	43	-11.305	88.231	52.960	1.00	66.48	A	C
ATOM	94	CD1	LEU	A	43	-12.299	88.654	51.894	1.00	68.25	A	C
ATOM	95	CD2	LEU	A	43	-10.062	89.101	52.894	1.00	66.70	A	C
ATOM	96	C	LEU	A	43	-12.326	86.148	55.430	1.00	68.15	A	C
ATOM	97	O	LEU	A	43	-11.884	85.170	54.825	1.00	68.49	A	O
ATOM	98	N	GLN	A	44	-12.215	86.291	56.748	1.00	69.83	A	N
ATOM	99	CA	GLN	A	44	-11.549	85.297	57.580	1.00	70.78	A	C
ATOM	100	CB	GLN	A	44	-11.491	85.781	59.027	1.00	71.59	A	C
ATOM	101	CG	GLN	A	44	-10.491	86.882	59.246	1.00	74.67	A	C
ATOM	102	CD	GLN	A	44	-9.120	86.510	58.717	1.00	76.78	A	C
ATOM	103	OE1	GLN	A	44	-8.531	85.509	59.136	1.00	78.74	A	O
ATOM	104	NE2	GLN	A	44	-8.603	87.314	57.786	1.00	77.42	A	N
ATOM	105	C	GLN	A	44	-12.202	83.931	57.545	1.00	70.99	A	C
ATOM	106	O	GLN	A	44	-11.906	83.072	58.372	1.00	71.64	A	O
ATOM	107	N	ILE	A	45	-13.081	83.717	56.580	1.00	71.87	A	N
ATOM	108	CA	ILE	A	45	-13.767	82.446	56.498	1.00	72.31	A	C
ATOM	109	CB	ILE	A	45	-15.057	82.530	57.312	1.00	72.40	A	C
ATOM	110	CG2	ILE	A	45	-16.098	83.315	56.542	1.00	73.06	A	C
ATOM	111	CG1	ILE	A	45	-15.534	81.132	57.681	1.00	73.99	A	C
ATOM	112	CD1	ILE	A	45	-16.431	81.132	58.910	1.00	75.32	A	C
ATOM	113	C	ILE	A	45	-14.047	82.013	55.055	1.00	72.34	A	C
ATOM	114	O	ILE	A	45	-15.047	81.360	54.768	1.00	72.08	A	O
ATOM	115	N	GLY	A	46	-13.140	82.386	54.155	1.00	72.70	A	N
ATOM	116	CA	GLY	A	46	-13.272	82.008	52.764	1.00	72.66	A	C
ATOM	117	C	GLY	A	46	-12.390	82.766	51.778	1.00	73.12	A	C
ATOM	118	O	GLY	A	46	-12.169	83.974	51.907	1.00	72.03	A	O
ATOM	119	N	ILE	A	47	-11.882	82.036	50.785	1.00	74.22	A	N
ATOM	120	CA	ILE	A	47	-11.049	82.599	49.712	1.00	75.49	A	C
ATOM	121	CB	ILE	A	47	-9.737	83.237	50.246	1.00	74.62	A	C
ATOM	122	CG2	ILE	A	47	-8.877	82.184	50.941	1.00	75.70	A	C
ATOM	123	CG1	ILE	A	47	-8.982	83.885	49.081	1.00	73.61	A	C
ATOM	124	CD1	ILE	A	47	-9.794	84.953	48.370	1.00	72.77	A	C
ATOM	125	C	ILE	A	47	-10.674	81.558	48.641	1.00	76.34	A	C
ATOM	126	O	ILE	A	47	-10.040	80.537	48.938	1.00	75.82	A	O
ATOM	127	N	LYS	A	48	-11.063	81.835	47.397	1.00	76.96	A	N
ATOM	128	CA	LYS	A	48	-10.782	80.941	46.279	1.00	77.61	A	C
ATOM	129	CB	LYS	A	48	-9.311	80.488	46.320	1.00	77.92	A	C
ATOM	130	CG	LYS	A	48	-8.302	81.651	46.294	1.00	78.44	A	C
ATOM	131	CD	LYS	A	48	-6.849	81.200	46.490	1.00	79.15	A	C
ATOM	132	CE	LYS	A	48	-6.324	80.352	45.341	1.00	79.92	A	C
ATOM	133	NZ	LYS	A	48	-4.954	79.847	45.668	1.00	79.66	A	N
ATOM	134	C	LYS	A	48	-11.724	79.736	46.334	1.00	77.53	A	C
ATOM	135	O	LYS	A	48	-12.656	79.639	45.537	1.00	77.94	A	O
ATOM	136	N	ASP	A	49	-11.492	78.832	47.282	1.00	77.06	A	N
ATOM	137	CA	ASP	A	49	-12.324	77.638	47.427	1.00	76.51	A	C
ATOM	138	CB	ASP	A	49	-11.557	76.579	48.235	1.00	78.75	A	C
ATOM	139	CG	ASP	A	49	-11.410	75.260	47.487	1.00	81.36	A	C
ATOM	140	OD1	ASP	A	49	-12.456	74.681	47.101	1.00	83.26	A	O
ATOM	141	OD2	ASP	A	49	-10.259	74.799	47.287	1.00	82.23	A	O
ATOM	142	C	ASP	A	49	-13.667	77.971	48.101	1.00	75.08	A	C
ATOM	143	O	ASP	A	49	-14.245	77.144	48.820	1.00	74.35	A	O
ATOM	144	N	ILE	A	50	-14.150	79.189	47.846	1.00	72.60	A	N
ATOM	145	CA	ILE	A	50	-15.411	79.698	48.398	1.00	69.88	A	C
ATOM	146	CB	ILE	A	50	-15.939	80.914	47.589	1.00	70.44	A	C
ATOM	147	CG2	ILE	A	50	-17.236	81.432	48.199	1.00	68.21	A	C

Figure 1

ATOM	148	CG1	ILE	A	50	-14.870	82.012	47.548	1.00	70.26	A	C
ATOM	149	CD1	ILE	A	50	-14.434	82.507	48.910	1.00	70.37	A	C
ATOM	150	C	ILE	A	50	-16.529	78.665	48.455	1.00	67.93	A	C
ATOM	151	O	ILE	A	50	-17.316	78.651	49.399	1.00	67.54	A	O
ATOM	152	N	SER	A	51	-16.612	77.815	47.439	1.00	66.24	A	N
ATOM	153	CA	SER	A	51	-17.640	76.782	47.409	1.00	65.71	A	C
ATOM	154	CB	SER	A	51	-17.625	76.055	46.060	1.00	65.57	A	C
ATOM	155	OG	SER	A	51	-18.418	74.879	46.100	1.00	65.19	A	O
ATOM	156	C	SER	A	51	-17.451	75.765	48.538	1.00	65.07	A	C
ATOM	157	O	SER	A	51	-18.425	75.245	49.081	1.00	65.15	A	O
ATOM	158	N	LYS	A	52	-16.198	75.486	48.891	1.00	63.99	A	N
ATOM	159	CA	LYS	A	52	-15.903	74.515	49.943	1.00	62.29	A	C
ATOM	160	CB	LYS	A	52	-14.420	74.172	49.951	1.00	65.11	A	C
ATOM	161	CG	LYS	A	52	-14.071	72.998	50.869	1.00	68.49	A	C
ATOM	162	CD	LYS	A	52	-12.652	72.517	50.587	1.00	71.15	A	C
ATOM	163	CE	LYS	A	52	-12.406	71.113	51.103	1.00	72.63	A	C
ATOM	164	NZ	LYS	A	52	-11.170	70.535	50.487	1.00	74.71	A	N
ATOM	165	C	LYS	A	52	-16.295	74.993	51.326	1.00	59.70	A	C
ATOM	166	O	LYS	A	52	-16.865	74.245	52.120	1.00	59.00	A	O
ATOM	167	N	SER	A	53	-15.960	76.242	51.618	1.00	56.11	A	N
ATOM	168	CA	SER	A	53	-16.285	76.829	52.902	1.00	51.68	A	C
ATOM	169	CB	SER	A	53	-15.702	78.215	52.991	1.00	51.19	A	C
ATOM	170	OG	SER	A	53	-16.199	78.980	51.918	1.00	52.51	A	O
ATOM	171	C	SER	A	53	-17.782	76.921	53.039	1.00	49.74	A	C
ATOM	172	O	SER	A	53	-18.296	77.043	54.145	1.00	50.16	A	O
ATOM	173	N	LEU	A	54	-18.488	76.874	51.914	1.00	47.87	A	N
ATOM	174	CA	LEU	A	54	-19.942	76.944	51.953	1.00	45.22	A	C
ATOM	175	CB	LEU	A	54	-20.506	77.342	50.591	1.00	44.58	A	C
ATOM	176	CG	LEU	A	54	-20.288	78.754	50.059	1.00	44.49	A	C
ATOM	177	CD1	LEU	A	54	-21.172	78.919	48.823	1.00	43.80	A	C
ATOM	178	CD2	LEU	A	54	-20.635	79.808	51.097	1.00	43.31	A	C
ATOM	179	C	LEU	A	54	-20.559	75.617	52.387	1.00	43.50	A	C
ATOM	180	O	LEU	A	54	-21.569	75.598	53.074	1.00	41.88	A	O
ATOM	181	N	THR	A	55	-19.955	74.508	51.987	1.00	42.59	A	N
ATOM	182	CA	THR	A	55	-20.491	73.213	52.355	1.00	42.97	A	C
ATOM	183	CB	THR	A	55	-19.745	72.092	51.625	1.00	44.28	A	C
ATOM	184	OG1	THR	A	55	-19.925	72.261	50.213	1.00	48.33	A	O
ATOM	185	CG2	THR	A	55	-20.276	70.730	52.041	1.00	43.17	A	C
ATOM	186	C	THR	A	55	-20.385	73.019	53.860	1.00	42.22	A	C
ATOM	187	O	THR	A	55	-21.262	72.430	54.485	1.00	43.28	A	O
ATOM	188	N	ASN	A	56	-19.306	73.525	54.438	1.00	40.31	A	N
ATOM	189	CA	ASN	A	56	-19.107	73.424	55.861	1.00	38.01	A	C
ATOM	190	CB	ASN	A	56	-17.640	73.648	56.194	1.00	37.49	A	C
ATOM	191	CG	ASN	A	56	-16.780	72.458	55.819	1.00	38.76	A	C
ATOM	192	OD1	ASN	A	56	-15.591	72.590	55.572	1.00	39.50	A	O
ATOM	193	ND2	ASN	A	56	-17.387	71.281	55.781	1.00	38.71	A	N
ATOM	194	C	ASN	A	56	-19.992	74.409	56.608	1.00	37.06	A	C
ATOM	195	O	ASN	A	56	-20.493	74.098	57.670	1.00	38.49	A	O
ATOM	196	N	LEU	A	57	-20.221	75.592	56.070	1.00	35.61	A	N
ATOM	197	CA	LEU	A	57	-21.075	76.516	56.786	1.00	36.02	A	C
ATOM	198	CB	LEU	A	57	-21.100	77.871	56.093	1.00	37.02	A	C
ATOM	199	CG	LEU	A	57	-19.896	78.773	56.315	1.00	38.86	A	C
ATOM	200	CD1	LEU	A	57	-19.942	79.864	55.294	1.00	39.91	A	C
ATOM	201	CD2	LEU	A	57	-19.888	79.332	57.745	1.00	37.65	A	C
ATOM	202	C	LEU	A	57	-22.504	76.004	56.898	1.00	35.97	A	C
ATOM	203	O	LEU	A	57	-23.157	76.185	57.917	1.00	36.48	A	O
ATOM	204	N	SER	A	58	-22.998	75.377	55.839	1.00	35.81	A	N
ATOM	205	CA	SER	A	58	-24.363	74.853	55.799	1.00	33.52	A	C
ATOM	206	CB	SER	A	58	-24.629	74.265	54.439	1.00	32.60	A	C
ATOM	207	OG	SER	A	58	-23.736	73.183	54.264	1.00	33.25	A	O
ATOM	208	C	SER	A	58	-24.513	73.745	56.798	1.00	33.06	A	C
ATOM	209	O	SER	A	58	-25.617	73.389	57.200	1.00	32.92	A	O
ATOM	210	N	LYS	A	59	-23.376	73.172	57.154	1.00	33.47	A	N
ATOM	211	CA	LYS	A	59	-23.333	72.075	58.091	1.00	34.07	A	C
ATOM	212	CB	LYS	A	59	-21.996	71.359	57.984	1.00	35.04	A	C
ATOM	213	CG	LYS	A	59	-22.152	69.922	57.564	1.00	37.82	A	C
ATOM	214	CD	LYS	A	59	-20.826	69.225	57.346	1.00	40.93	A	C
ATOM	215	CE	LYS	A	59	-20.214	69.610	56.005	1.00	42.79	A	C
ATOM	216	NZ	LYS	A	59	-18.957	68.857	55.669	1.00	44.17	A	N
ATOM	217	C	LYS	A	59	-23.526	72.596	59.483	1.00	34.10	A	C
ATOM	218	O	LYS	A	59	-23.768	71.831	60.407	1.00	36.05	A	O
ATOM	219	N	VAL	A	60	-23.438	73.912	59.627	1.00	34.12	A	N
ATOM	220	CA	VAL	A	60	-23.586	74.531	60.927	1.00	32.76	A	C
ATOM	221	CB	VAL	A	60	-22.342	75.292	61.322	1.00	31.28	A	C
ATOM	222	CG1	VAL	A	60	-22.486	75.762	62.748	1.00	32.90	A	C

Figure 1

ATOM	223	CG2	VAL	A	60	-21.124	74.425	61.152	1.00	28.64	A	C
ATOM	224	C	VAL	A	60	-24.726	75.504	61.007	1.00	32.78	A	C
ATOM	225	O	VAL	A	60	-25.232	75.760	62.089	1.00	34.72	A	O
ATOM	226	N	TYR	A	61	-25.128	76.074	59.885	1.00	32.62	A	N
ATOM	227	CA	TYR	A	61	-26.211	77.026	59.951	1.00	34.23	A	C
ATOM	228	CB	TYR	A	61	-25.764	78.365	59.392	1.00	34.62	A	C
ATOM	229	CG	TYR	A	61	-24.629	78.954	60.186	1.00	37.04	A	C
ATOM	230	CD1	TYR	A	61	-24.862	79.584	61.399	1.00	36.49	A	C
ATOM	231	CE1	TYR	A	61	-23.822	80.075	62.155	1.00	38.31	A	C
ATOM	232	CD2	TYR	A	61	-23.312	78.831	59.749	1.00	37.25	A	C
ATOM	233	CE2	TYR	A	61	-22.264	79.319	60.501	1.00	37.77	A	C
ATOM	234	CZ	TYR	A	61	-22.531	79.941	61.708	1.00	38.91	A	C
ATOM	235	OH	TYR	A	61	-21.519	80.442	62.495	1.00	42.77	A	O
ATOM	236	C	TYR	A	61	-27.439	76.556	59.236	1.00	35.77	A	C
ATOM	237	O	TYR	A	61	-28.512	77.107	59.445	1.00	39.48	A	O
ATOM	238	N	GLY	A	62	-27.295	75.539	58.393	1.00	35.52	A	N
ATOM	239	CA	GLY	A	62	-28.442	75.034	57.662	1.00	34.04	A	C
ATOM	240	C	GLY	A	62	-28.351	75.237	56.162	1.00	34.90	A	C
ATOM	241	O	GLY	A	62	-27.331	75.688	55.662	1.00	34.87	A	O
ATOM	242	N	PRO	A	63	-29.417	74.906	55.412	1.00	35.94	A	N
ATOM	243	CD	PRO	A	63	-30.652	74.253	55.891	1.00	34.83	A	C
ATOM	244	CA	PRO	A	63	-29.470	75.046	53.958	1.00	35.67	A	C
ATOM	245	CB	PRO	A	63	-30.637	74.142	53.599	1.00	36.44	A	C
ATOM	246	CG	PRO	A	63	-31.579	74.391	54.715	1.00	32.77	A	C
ATOM	247	C	PRO	A	63	-29.725	76.480	53.514	1.00	35.56	A	C
ATOM	248	O	PRO	A	63	-29.804	76.761	52.319	1.00	36.44	A	O
ATOM	249	N	VAL	A	64	-29.891	77.384	54.474	1.00	35.99	A	N
ATOM	250	CA	VAL	A	64	-30.171	78.781	54.144	1.00	34.49	A	C
ATOM	251	CB	VAL	A	64	-31.672	79.026	54.056	1.00	32.22	A	C
ATOM	252	CG1	VAL	A	64	-31.932	80.483	53.834	1.00	32.63	A	C
ATOM	253	CG2	VAL	A	64	-32.250	78.227	52.933	1.00	32.93	A	C
ATOM	254	C	VAL	A	64	-29.583	79.774	55.127	1.00	34.65	A	C
ATOM	255	O	VAL	A	64	-30.275	80.262	56.006	1.00	33.50	A	O
ATOM	256	N	PHE	A	65	-28.312	80.110	54.942	1.00	35.99	A	N
ATOM	257	CA	PHE	A	65	-27.643	81.036	55.851	1.00	38.42	A	C
ATOM	258	CB	PHE	A	65	-26.518	80.310	56.536	1.00	35.64	A	C
ATOM	259	CG	PHE	A	65	-25.485	79.807	55.594	1.00	32.42	A	C
ATOM	260	CD1	PHE	A	65	-24.366	80.571	55.302	1.00	31.25	A	C
ATOM	261	CD2	PHE	A	65	-25.615	78.551	55.019	1.00	30.81	A	C
ATOM	262	CE1	PHE	A	65	-23.381	80.084	54.456	1.00	31.87	A	C
ATOM	263	CE2	PHE	A	65	-24.639	78.054	54.172	1.00	29.62	A	C
ATOM	264	CZ	PHE	A	65	-23.520	78.820	53.889	1.00	31.13	A	C
ATOM	265	C	PHE	A	65	-27.072	82.272	55.178	1.00	40.64	A	C
ATOM	266	O	PHE	A	65	-26.734	82.251	53.993	1.00	42.20	A	O
ATOM	267	N	THR	A	66	-26.934	83.348	55.942	1.00	41.29	A	N
ATOM	268	CA	THR	A	66	-26.395	84.563	55.362	1.00	42.21	A	C
ATOM	269	CB	THR	A	66	-27.080	85.801	55.940	1.00	42.73	A	C
ATOM	270	OG1	THR	A	66	-27.092	85.714	57.363	1.00	44.68	A	O
ATOM	271	CG2	THR	A	66	-28.508	85.892	55.443	1.00	43.37	A	C
ATOM	272	C	THR	A	66	-24.880	84.682	55.528	1.00	42.03	A	C
ATOM	273	O	THR	A	66	-24.294	84.178	56.473	1.00	41.81	A	O
ATOM	274	N	LEU	A	67	-24.242	85.321	54.562	1.00	41.92	A	N
ATOM	275	CA	LEU	A	67	-22.806	85.517	54.593	1.00	40.87	A	C
ATOM	276	CB	LEU	A	67	-22.140	84.643	53.531	1.00	39.57	A	C
ATOM	277	CG	LEU	A	67	-21.012	83.726	54.004	1.00	38.82	A	C
ATOM	278	CD1	LEU	A	67	-21.362	83.086	55.339	1.00	38.76	A	C
ATOM	279	CD2	LEU	A	67	-20.746	82.656	52.947	1.00	37.38	A	C
ATOM	280	C	LEU	A	67	-22.587	86.997	54.292	1.00	42.22	A	C
ATOM	281	O	LEU	A	67	-23.283	87.583	53.444	1.00	42.13	A	O
ATOM	282	N	TYR	A	68	-21.635	87.608	54.997	1.00	42.85	A	N
ATOM	283	CA	TYR	A	68	-21.338	89.025	54.785	1.00	42.05	A	C
ATOM	284	CB	TYR	A	68	-21.101	89.755	56.111	1.00	40.59	A	C
ATOM	285	CG	TYR	A	68	-22.367	90.213	56.754	1.00	40.19	A	C
ATOM	286	CD1	TYR	A	68	-23.172	89.324	57.446	1.00	41.94	A	C
ATOM	287	CE1	TYR	A	68	-24.415	89.714	57.931	1.00	43.96	A	C
ATOM	288	CD2	TYR	A	68	-22.822	91.511	56.570	1.00	40.51	A	C
ATOM	289	CE2	TYR	A	68	-24.057	91.917	57.046	1.00	41.58	A	C
ATOM	290	CZ	TYR	A	68	-24.853	91.014	57.721	1.00	43.34	A	C
ATOM	291	OH	TYR	A	68	-26.111	91.384	58.148	1.00	46.10	A	O
ATOM	292	C	TYR	A	68	-20.128	89.226	53.897	1.00	42.18	A	C
ATOM	293	O	TYR	A	68	-19.004	89.078	54.338	1.00	42.14	A	O
ATOM	294	N	PHE	A	69	-20.359	89.555	52.635	1.00	43.35	A	N
ATOM	295	CA	PHE	A	69	-19.256	89.811	51.722	1.00	43.71	A	C
ATOM	296	CB	PHE	A	69	-19.652	89.523	50.275	1.00	46.53	A	C
ATOM	297	CG	PHE	A	69	-19.651	88.070	49.929	1.00	49.69	A	C

Figure 1

ATOM	298	CD1	PHE	A	69	-20.638	87.224	50.424	1.00	51.37	A	C
ATOM	299	CD2	PHE	A	69	-18.656	87.541	49.116	1.00	50.66	A	C
ATOM	300	CE1	PHE	A	69	-20.640	85.873	50.115	1.00	52.28	A	C
ATOM	301	CE2	PHE	A	69	-18.646	86.188	48.798	1.00	52.12	A	C
ATOM	302	CZ	PHE	A	69	-19.640	85.350	49.298	1.00	52.97	A	C
ATOM	303	C	PHE	A	69	-19.006	91.293	51.902	1.00	42.86	A	C
ATOM	304	O	PHE	A	69	-19.788	92.122	51.431	1.00	42.04	A	O
ATOM	305	N	GLY	A	70	-17.929	91.616	52.607	1.00	41.78	A	N
ATOM	306	CA	GLY	A	70	-17.613	92.999	52.875	1.00	41.41	A	C
ATOM	307	C	GLY	A	70	-18.677	93.502	53.821	1.00	42.27	A	C
ATOM	308	O	GLY	A	70	-18.792	93.031	54.952	1.00	41.45	A	O
ATOM	309	N	LEU	A	71	-19.469	94.464	53.375	1.00	43.98	A	N
ATOM	310	CA	LEU	A	71	-20.531	94.956	54.229	1.00	45.66	A	C
ATOM	311	CB	LEU	A	71	-20.546	96.468	54.274	1.00	47.11	A	C
ATOM	312	CG	LEU	A	71	-19.757	97.134	55.391	1.00	48.48	A	C
ATOM	313	CD1	LEU	A	71	-18.290	97.322	54.974	1.00	49.74	A	C
ATOM	314	CD2	LEU	A	71	-20.411	98.464	55.669	1.00	48.94	A	C
ATOM	315	C	LEU	A	71	-21.872	94.482	53.731	1.00	46.91	A	C
ATOM	316	O	LEU	A	71	-22.850	94.507	54.477	1.00	46.85	A	O
ATOM	317	N	LYS	A	72	-21.918	94.063	52.465	1.00	48.57	A	N
ATOM	318	CA	LYS	A	72	-23.159	93.582	51.867	1.00	49.18	A	C
ATOM	319	CB	LYS	A	72	-23.096	93.577	50.328	1.00	51.15	A	C
ATOM	320	CG	LYS	A	72	-23.345	94.952	49.646	1.00	57.01	A	C
ATOM	321	CD	LYS	A	72	-24.829	95.403	49.623	1.00	59.46	A	C
ATOM	322	CE	LYS	A	72	-25.013	96.735	48.866	1.00	61.14	A	C
ATOM	323	NZ	LYS	A	72	-26.429	97.014	48.468	1.00	64.01	A	N
ATOM	324	C	LYS	A	72	-23.499	92.196	52.356	1.00	48.27	A	C
ATOM	325	O	LYS	A	72	-22.634	91.327	52.504	1.00	47.85	A	O
ATOM	326	N	PRO	A	73	-24.781	91.979	52.640	1.00	47.60	A	N
ATOM	327	CD	PRO	A	73	-25.816	93.017	52.804	1.00	47.17	A	C
ATOM	328	CA	PRO	A	73	-25.258	90.689	53.118	1.00	46.60	A	C
ATOM	329	CB	PRO	A	73	-26.380	91.090	54.055	1.00	46.28	A	C
ATOM	330	CG	PRO	A	73	-27.004	92.229	53.300	1.00	47.65	A	C
ATOM	331	C	PRO	A	73	-25.757	89.862	51.936	1.00	45.81	A	C
ATOM	332	O	PRO	A	73	-26.438	90.386	51.050	1.00	46.17	A	O
ATOM	333	N	ILE	A	74	-25.376	88.608	51.891	1.00	15.00	A	N
ATOM	334	CA	ILE	A	74	-25.860	87.707	50.851	1.00	15.00	A	C
ATOM	335	CB	ILE	A	74	-24.774	87.447	49.787	1.00	15.00	A	C
ATOM	336	CG2	ILE	A	74	-25.269	86.430	48.772	1.00	15.00	A	C
ATOM	337	CG1	ILE	A	74	-24.395	88.755	49.092	1.00	15.00	A	C
ATOM	338	CD1	ILE	A	74	-23.083	88.690	48.339	1.00	15.00	A	C
ATOM	339	C	ILE	A	74	-26.297	86.372	51.442	1.00	15.00	A	C
ATOM	340	O	ILE	A	74	-25.604	85.841	52.321	1.00	42.66	A	O
ATOM	341	N	VAL	A	75	-27.487	85.904	51.102	1.00	40.55	A	N
ATOM	342	CA	VAL	A	75	-27.978	84.647	51.665	1.00	38.38	A	C
ATOM	343	CB	VAL	A	75	-29.517	84.693	51.923	1.00	37.71	A	C
ATOM	344	CG1	VAL	A	75	-29.991	86.121	52.022	1.00	37.11	A	C
ATOM	345	CG2	VAL	A	75	-30.262	83.966	50.849	1.00	40.46	A	C
ATOM	346	C	VAL	A	75	-27.618	83.514	50.701	1.00	36.26	A	C
ATOM	347	O	VAL	A	75	-27.611	83.712	49.491	1.00	36.06	A	O
ATOM	348	N	VAL	A	76	-27.303	82.339	51.242	1.00	34.78	A	N
ATOM	349	CA	VAL	A	76	-26.937	81.169	50.429	1.00	33.20	A	C
ATOM	350	CB	VAL	A	76	-25.551	80.598	50.871	1.00	31.13	A	C
ATOM	351	CG1	VAL	A	76	-25.239	79.318	50.125	1.00	28.87	A	C
ATOM	352	CG2	VAL	A	76	-24.463	81.621	50.629	1.00	30.70	A	C
ATOM	353	C	VAL	A	76	-27.979	80.037	50.522	1.00	33.50	A	C
ATOM	354	O	VAL	A	76	-28.624	79.861	51.547	1.00	35.00	A	O
ATOM	355	N	LEU	A	77	-28.146	79.278	49.445	1.00	32.90	A	N
ATOM	356	CA	LEU	A	77	-29.082	78.154	49.426	1.00	31.15	A	C
ATOM	357	CB	LEU	A	77	-30.056	78.306	48.268	1.00	30.85	A	C
ATOM	358	CG	LEU	A	77	-30.822	79.625	48.179	1.00	30.92	A	C
ATOM	359	CD1	LEU	A	77	-31.607	79.643	46.899	1.00	29.17	A	C
ATOM	360	CD2	LEU	A	77	-31.733	79.810	49.383	1.00	32.03	A	C
ATOM	361	C	LEU	A	77	-28.194	76.939	49.198	1.00	30.72	A	C
ATOM	362	O	LEU	A	77	-27.415	76.905	48.239	1.00	30.30	A	O
ATOM	363	N	HIS	A	78	-28.310	75.924	50.041	1.00	29.81	A	N
ATOM	364	CA	HIS	A	78	-27.400	74.816	49.855	1.00	30.11	A	C
ATOM	365	CB	HIS	A	78	-26.546	74.647	51.110	1.00	29.33	A	C
ATOM	366	CG	HIS	A	78	-25.265	73.912	50.872	1.00	27.47	A	C
ATOM	367	CD2	HIS	A	78	-24.052	74.349	50.461	1.00	27.87	A	C
ATOM	368	ND1	HIS	A	78	-25.150	72.550	51.027	1.00	28.24	A	N
ATOM	369	CE1	HIS	A	78	-23.919	72.175	50.721	1.00	29.31	A	C
ATOM	370	NE2	HIS	A	78	-23.233	73.248	50.374	1.00	29.70	A	N
ATOM	371	C	HIS	A	78	-27.999	73.491	49.428	1.00	30.91	A	C
ATOM	372	O	HIS	A	78	-27.475	72.806	48.544	1.00	27.66	A	O

Figure 1

ATOM	373	N	GLY	A	79	-29.097	73.109	50.038	1.00	32.22	A	N
ATOM	374	CA	GLY	A	79	-29.664	71.862	49.605	1.00	36.10	A	C
ATOM	375	C	GLY	A	79	-30.195	71.979	48.193	1.00	36.69	A	C
ATOM	376	O	GLY	A	79	-30.124	73.038	47.563	1.00	36.46	A	O
ATOM	377	N	TYR	A	80	-30.709	70.848	47.722	1.00	38.55	A	N
ATOM	378	CA	TYR	A	80	-31.347	70.692	46.431	1.00	38.23	A	C
ATOM	379	CB	TYR	A	80	-31.424	69.214	46.028	1.00	37.73	A	C
ATOM	380	CG	TYR	A	80	-32.411	68.981	44.907	1.00	37.09	A	C
ATOM	381	CD1	TYR	A	80	-32.115	69.392	43.611	1.00	38.84	A	C
ATOM	382	CE1	TYR	A	80	-33.080	69.367	42.601	1.00	36.51	A	C
ATOM	383	CD2	TYR	A	80	-33.697	68.514	45.160	1.00	35.77	A	C
ATOM	384	CE2	TYR	A	80	-34.669	68.488	44.150	1.00	34.53	A	C
ATOM	385	CZ	TYR	A	80	-34.354	68.924	42.886	1.00	34.66	A	C
ATOM	386	CH	TYR	A	80	-35.329	69.000	41.930	1.00	34.47	A	O
ATOM	387	C	TYR	A	80	-32.751	71.157	46.749	1.00	38.94	A	C
ATOM	388	O	TYR	A	80	-33.399	71.795	45.942	1.00	38.25	A	O
ATOM	389	N	GLU	A	81	-33.219	70.821	47.946	1.00	41.35	A	N
ATOM	390	CA	GLU	A	81	-34.550	71.216	48.347	1.00	44.24	A	C
ATOM	391	CB	GLU	A	81	-34.942	70.576	49.668	1.00	47.08	A	C
ATOM	392	CG	GLU	A	81	-34.759	69.092	49.734	1.00	53.37	A	C
ATOM	393	CD	GLU	A	81	-35.138	68.530	51.108	1.00	59.14	A	C
ATOM	394	OE1	GLU	A	81	-36.361	68.488	51.431	1.00	62.35	A	O
ATOM	395	OE2	GLU	A	81	-34.211	68.138	51.872	1.00	61.02	A	O
ATOM	396	C	GLU	A	81	-34.576	72.714	48.508	1.00	44.31	A	C
ATOM	397	O	GLU	A	81	-35.617	73.334	48.344	1.00	45.46	A	O
ATOM	398	N	ALA	A	82	-33.433	73.309	48.821	1.00	44.52	A	N
ATOM	399	CA	ALA	A	82	-33.407	74.753	49.005	1.00	43.93	A	C
ATOM	400	CB	ALA	A	82	-32.274	75.145	49.909	1.00	45.87	A	C
ATOM	401	C	ALA	A	82	-33.280	75.460	47.679	1.00	44.00	A	C
ATOM	402	O	ALA	A	82	-33.910	76.483	47.457	1.00	43.01	A	O
ATOM	403	N	VAL	A	83	-32.460	74.912	46.794	1.00	44.66	A	N
ATOM	404	CA	VAL	A	83	-32.278	75.522	45.493	1.00	46.36	A	C
ATOM	405	CB	VAL	A	83	-31.070	74.909	44.753	1.00	46.39	A	C
ATOM	406	CG1	VAL	A	83	-30.888	75.570	43.398	1.00	47.69	A	C
ATOM	407	CG2	VAL	A	83	-29.816	75.085	45.581	1.00	45.66	A	C
ATOM	408	C	VAL	A	83	-33.539	75.325	44.664	1.00	47.65	A	C
ATOM	409	O	VAL	A	83	-34.064	76.276	44.076	1.00	47.84	A	O
ATOM	410	N	LYS	A	84	-34.027	74.089	44.635	1.00	49.08	A	N
ATOM	411	CA	LYS	A	84	-35.223	73.741	43.875	1.00	51.22	A	C
ATOM	412	CB	LYS	A	84	-35.528	72.245	44.049	1.00	53.13	A	C
ATOM	413	CG	LYS	A	84	-36.997	71.857	44.132	1.00	56.14	A	C
ATOM	414	CD	LYS	A	84	-37.792	72.081	42.854	1.00	58.80	A	C
ATOM	415	CE	LYS	A	84	-39.306	71.932	43.161	1.00	61.75	A	C
ATOM	416	NZ	LYS	A	84	-40.218	71.949	41.977	1.00	62.41	A	N
ATOM	417	C	LYS	A	84	-36.424	74.581	44.270	1.00	50.96	A	C
ATOM	418	O	LYS	A	84	-37.087	75.171	43.414	1.00	51.75	A	O
ATOM	419	N	GLU	A	85	-36.703	74.635	45.565	1.00	50.76	A	N
ATOM	420	CA	GLU	A	85	-37.840	75.394	46.067	1.00	51.17	A	C
ATOM	421	CB	GLU	A	85	-37.829	75.398	47.593	1.00	52.54	A	C
ATOM	422	CG	GLU	A	85	-39.109	75.908	48.192	1.00	55.78	A	C
ATOM	423	CD	GLU	A	85	-39.091	75.920	49.713	1.00	58.01	A	C
ATOM	424	OE1	GLU	A	85	-38.639	74.919	50.323	1.00	58.09	A	O
ATOM	425	OE2	GLU	A	85	-39.545	76.933	50.300	1.00	59.66	A	O
ATOM	426	C	GLU	A	85	-37.805	76.830	45.570	1.00	50.59	A	C
ATOM	427	O	GLU	A	85	-38.740	77.315	44.936	1.00	50.57	A	O
ATOM	428	N	ALA	A	86	-36.697	77.496	45.871	1.00	50.32	A	N
ATOM	429	CA	ALA	A	86	-36.470	78.890	45.517	1.00	48.53	A	C
ATOM	430	CB	ALA	A	86	-35.238	79.397	46.250	1.00	47.44	A	C
ATOM	431	C	ALA	A	86	-36.331	79.172	44.034	1.00	48.14	A	C
ATOM	432	O	ALA	A	86	-36.771	80.215	43.566	1.00	48.91	A	O
ATOM	433	N	LEU	A	87	-35.721	78.260	43.286	1.00	48.20	A	N
ATOM	434	CA	LEU	A	87	-35.532	78.496	41.859	1.00	47.61	A	C
ATOM	435	CB	LEU	A	87	-34.227	77.866	41.387	1.00	45.68	A	C
ATOM	436	CG	LEU	A	87	-32.948	78.606	41.791	1.00	43.63	A	C
ATOM	437	CD1	LEU	A	87	-31.773	77.963	41.061	1.00	41.82	A	C
ATOM	438	CD2	LEU	A	87	-33.056	80.092	41.443	1.00	40.01	A	C
ATOM	439	C	LEU	A	87	-36.662	78.034	40.968	1.00	48.25	A	C
ATOM	440	O	LEU	A	87	-36.735	78.421	39.803	1.00	48.33	A	O
ATOM	441	N	ILE	A	88	-37.558	77.219	41.514	1.00	15.00	A	
ATOM	442	CA	ILE	A	88	-38.672	76.735	40.708	1.00	15.00	A	
ATOM	443	CB	ILE	A	88	-38.645	75.198	40.583	1.00	15.00	A	
ATOM	444	CG2	ILE	A	88	-39.869	74.713	39.823	1.00	15.00	A	
ATOM	445	CG1	ILE	A	88	-37.366	74.750	39.875	1.00	15.00	A	
ATOM	446	CD1	ILE	A	88	-37.046	73.282	40.059	1.00	15.00	A	
ATOM	447	C	ILE	A	88	-40.008	77.154	41.311	1.00	15.00	A	

Figure 1

ATOM	448	O	ILE	A	88	-40.871	77.665	40.582	1.00	52.40	A	N
ATOM	449	N	ASP	A	89	-40.203	76.961	42.610	1.00	53.28	A	C
ATOM	450	CA	ASP	A	89	-41.452	77.362	43.249	1.00	55.38	A	C
ATOM	451	CB	ASP	A	89	-41.549	76.802	44.665	1.00	56.01	A	C
ATOM	452	CG	ASP	A	89	-41.599	75.282	44.698	1.00	58.43	A	C
ATOM	453	OD1	ASP	A	89	-41.828	74.729	45.799	1.00	60.43	A	O
ATOM	454	OD2	ASP	A	89	-41.410	74.640	43.643	1.00	59.05	A	O
ATOM	455	C	ASP	A	89	-41.585	78.886	43.297	1.00	56.46	A	C
ATOM	456	O	ASP	A	89	-42.680	79.419	43.161	1.00	58.54	A	O
ATOM	457	N	LEU	A	90	-40.482	79.596	43.504	1.00	56.79	A	N
ATOM	458	CA	LEU	A	90	-40.545	81.048	43.543	1.00	56.57	A	C
ATOM	459	CB	LEU	A	90	-40.051	81.578	44.889	1.00	57.40	A	C
ATOM	460	CG	LEU	A	90	-40.886	81.268	46.140	1.00	58.05	A	C
ATOM	461	CD1	LEU	A	90	-40.701	79.815	46.539	1.00	58.41	A	C
ATOM	462	CD2	LEU	A	90	-40.456	82.184	47.285	1.00	57.11	A	C
ATOM	463	C	LEU	A	90	-39.711	81.640	42.418	1.00	56.89	A	C
ATOM	464	O	LEU	A	90	-39.068	82.676	42.580	1.00	56.81	A	O
ATOM	465	N	GLY	A	91	-39.738	80.974	41.270	1.00	57.35	A	N
ATOM	466	CA	GLY	A	91	-38.982	81.423	40.112	1.00	58.46	A	C
ATOM	467	C	GLY	A	91	-38.983	82.916	39.818	1.00	58.23	A	C
ATOM	468	O	GLY	A	91	-37.959	83.458	39.415	1.00	59.77	A	O
ATOM	469	N	GLU	A	92	-40.117	83.586	39.982	1.00	57.74	A	N
ATOM	470	CA	GLU	A	92	-40.147	85.013	39.718	1.00	57.73	A	C
ATOM	471	CB	GLU	A	92	-41.577	85.513	39.469	1.00	57.90	A	C
ATOM	472	CG	GLU	A	92	-41.979	85.593	37.994	1.00	59.10	A	C
ATOM	473	CD	GLU	A	92	-41.138	86.591	37.197	1.00	59.97	A	C
ATOM	474	OE1	GLU	A	92	-41.076	87.777	37.597	1.00	61.50	A	O
ATOM	475	OE2	GLU	A	92	-40.543	86.187	36.170	1.00	58.37	A	O
ATOM	476	C	GLU	A	92	-39.543	85.774	40.885	1.00	57.25	A	C
ATOM	477	O	GLU	A	92	-38.882	86.795	40.698	1.00	57.44	A	O
ATOM	478	N	GLU	A	93	-39.755	85.282	42.095	1.00	56.15	A	N
ATOM	479	CA	GLU	A	93	-39.217	85.974	43.249	1.00	55.91	A	C
ATOM	480	CB	GLU	A	93	-39.808	85.399	44.528	1.00	56.89	A	C
ATOM	481	CG	GLU	A	93	-41.291	85.674	44.663	1.00	59.84	A	C
ATOM	482	CD	GLU	A	93	-42.146	84.723	43.844	1.00	61.30	A	C
ATOM	483	OE1	GLU	A	93	-42.016	84.700	42.599	1.00	62.53	A	O
ATOM	484	OE2	GLU	A	93	-42.954	83.990	44.455	1.00	61.84	A	O
ATOM	485	C	GLU	A	93	-37.702	85.903	43.282	1.00	55.23	A	C
ATOM	486	O	GLU	A	93	-37.035	86.844	43.712	1.00	55.21	A	O
ATOM	487	N	PHE	A	94	-37.164	84.786	42.809	1.00	54.04	A	N
ATOM	488	CA	PHE	A	94	-35.726	84.574	42.775	1.00	52.77	A	C
ATOM	489	CB	PHE	A	94	-35.394	83.203	43.375	1.00	51.30	A	C
ATOM	490	CG	PHE	A	94	-35.406	83.174	44.880	1.00	50.02	A	C
ATOM	491	CD1	PHE	A	94	-34.305	83.618	45.600	1.00	48.70	A	C
ATOM	492	CD2	PHE	A	94	-36.517	82.705	45.576	1.00	49.37	A	C
ATOM	493	CE1	PHE	A	94	-34.305	83.596	46.991	1.00	48.96	A	C
ATOM	494	CE2	PHE	A	94	-36.527	82.679	46.968	1.00	48.23	A	C
ATOM	495	CZ	PHE	A	94	-35.419	83.125	47.676	1.00	48.49	A	C
ATOM	496	C	PHE	A	94	-35.198	84.638	41.350	1.00	53.14	A	C
ATOM	497	O	PHE	A	94	-34.880	83.613	40.775	1.00	54.57	A	O
ATOM	498	N	SER	A	95	-35.097	85.825	40.768	1.00	53.67	A	N
ATOM	499	CA	SER	A	95	-34.596	85.912	39.403	1.00	54.25	A	C
ATOM	500	CB	SER	A	95	-35.760	85.840	38.430	1.00	52.74	A	C
ATOM	501	OG	SER	A	95	-36.788	86.710	38.844	1.00	53.09	A	O
ATOM	502	C	SER	A	95	-33.753	87.148	39.113	1.00	55.98	A	C
ATOM	503	O	SER	A	95	-33.662	87.584	37.965	1.00	55.73	A	O
ATOM	504	N	GLY	A	96	-33.117	87.686	40.152	1.00	57.52	A	N
ATOM	505	CA	GLY	A	96	-32.275	88.854	39.985	1.00	59.25	A	C
ATOM	506	C	GLY	A	96	-30.823	88.500	39.702	1.00	60.80	A	C
ATOM	507	O	GLY	A	96	-30.532	87.383	39.290	1.00	60.60	A	O
ATOM	508	N	ARG	A	97	-29.912	89.448	39.932	1.00	61.73	A	N
ATOM	509	CA	ARG	A	97	-28.492	89.239	39.681	1.00	62.05	A	C
ATOM	510	CB	ARG	A	97	-28.084	89.973	38.405	1.00	62.87	A	C
ATOM	511	CG	ARG	A	97	-28.996	89.728	37.210	1.00	62.95	A	C
ATOM	512	CD	ARG	A	97	-30.385	90.400	37.355	1.00	65.51	A	C
ATOM	513	NE	ARG	A	97	-30.303	91.861	37.500	1.00	65.59	A	N
ATOM	514	CZ	ARG	A	97	-31.293	92.718	37.248	1.00	63.42	A	C
ATOM	515	NH1	ARG	A	97	-32.482	92.294	36.829	1.00	60.91	A	N
ATOM	516	NH2	ARG	A	97	-31.079	94.012	37.407	1.00	63.25	A	N
ATOM	517	C	ARG	A	97	-27.674	89.755	40.866	1.00	62.86	A	C
ATOM	518	O	ARG	A	97	-27.113	88.976	41.639	1.00	62.89	A	O
ATOM	519	N	GLY	A	98	-27.588	91.078	40.986	1.00	64.88	A	N
ATOM	520	CA	GLY	A	98	-26.879	91.695	42.099	1.00	66.10	A	C
ATOM	521	C	GLY	A	98	-25.403	92.024	42.000	1.00	66.56	A	C
ATOM	522	O	GLY	A	98	-24.651	91.621	42.875	1.00	68.28	A	O

Figure 1

ATOM	523	N	ILE	A	99	-24.974	92.769	40.986	1.00	65.66	A	N
ATOM	524	CA	ILE	A	99	-23.559	93.100	40.887	1.00	63.38	A	C
ATOM	525	CB	ILE	A	99	-22.696	91.792	41.117	1.00	64.27	A	C
ATOM	526	CG2	ILE	A	99	-21.954	91.346	39.834	1.00	62.63	A	C
ATOM	527	CG1	ILE	A	99	-21.763	92.000	42.323	1.00	61.57	A	C
ATOM	528	CD1	ILE	A	99	-20.791	93.153	42.216	1.00	61.14	A	C
ATOM	529	C	ILE	A	99	-23.212	93.797	39.564	1.00	61.40	A	C
ATOM	530	O	ILE	A	99	-23.958	93.703	38.578	1.00	62.17	A	O
ATOM	531	N	PHE	A	100	-22.091	94.522	39.567	1.00	59.26	A	N
ATOM	532	CA	PHE	A	100	-21.629	95.250	38.381	1.00	60.28	A	C
ATOM	533	CB	PHE	A	100	-21.463	96.774	38.671	1.00	58.70	A	C
ATOM	534	CG	PHE	A	100	-22.511	97.354	39.590	1.00	58.62	A	C
ATOM	535	CD1	PHE	A	100	-22.380	97.258	40.978	1.00	56.04	A	C
ATOM	536	CD2	PHE	A	100	-23.660	97.940	39.069	1.00	58.09	A	C
ATOM	537	CE1	PHE	A	100	-23.393	97.742	41.834	1.00	57.49	A	C
ATOM	538	CE2	PHE	A	100	-24.680	98.426	39.911	1.00	59.49	A	C
ATOM	539	CZ	PHE	A	100	-24.547	98.323	41.298	1.00	59.34	A	C
ATOM	540	C	PHE	A	100	-20.286	94.683	37.896	1.00	60.52	A	C
ATOM	541	O	PHE	A	100	-19.449	95.493	37.422	1.00	63.21	A	O
ATOM	542	OXT	PHE	A	100	-20.101	93.446	37.990	1.00	61.69	A	O
TER	542		PHE	A	100							
ATOM	543	CB	PHE	A	110	-28.202	96.471	27.900	1.00	68.08	A	C
ATOM	544	CG	PHE	A	110	-29.237	97.522	28.122	1.00	71.17	A	C
ATOM	545	CD1	PHE	A	110	-30.361	97.255	28.902	1.00	71.98	A	C
ATOM	546	CD2	PHE	A	110	-29.096	98.781	27.545	1.00	71.46	A	C
ATOM	547	CE1	PHE	A	110	-31.334	98.227	29.104	1.00	72.74	A	C
ATOM	548	CE2	PHE	A	110	-30.060	99.757	27.739	1.00	72.95	A	C
ATOM	549	CZ	PHE	A	110	-31.183	99.483	28.522	1.00	73.51	A	C
ATOM	550	C	PHE	A	110	-27.234	94.433	28.870	1.00	65.80	A	C
ATOM	551	O	PHE	A	110	-26.378	93.861	29.555	1.00	67.80	A	O
ATOM	552	N	PHE	A	110	-26.608	96.676	29.790	1.00	66.06	A	N
ATOM	553	CA	PHE	A	110	-27.684	95.839	29.185	1.00	66.01	A	C
ATOM	554	N	GLY	A	111	-27.825	93.877	27.821	1.00	64.08	A	N
ATOM	555	CA	GLY	A	111	-27.488	92.531	27.414	1.00	62.26	A	C
ATOM	556	C	GLY	A	111	-28.475	91.552	28.010	1.00	60.73	A	C
ATOM	557	O	GLY	A	111	-29.448	91.941	28.659	1.00	60.39	A	O
ATOM	558	N	ILE	A	112	-28.236	90.272	27.770	1.00	59.19	A	N
ATOM	559	CA	ILE	A	112	-29.113	89.252	28.300	1.00	57.54	A	C
ATOM	560	CB	ILE	A	112	-28.892	87.907	27.615	1.00	57.93	A	C
ATOM	561	CG2	ILE	A	112	-29.725	86.851	28.301	1.00	58.78	A	C
ATOM	562	CG1	ILE	A	112	-29.256	88.001	26.133	1.00	58.37	A	C
ATOM	563	CD1	ILE	A	112	-28.958	86.730	25.353	1.00	59.83	A	C
ATOM	564	C	ILE	A	112	-28.821	89.107	29.784	1.00	56.31	A	C
ATOM	565	O	ILE	A	112	-29.738	89.097	30.602	1.00	56.32	A	O
ATOM	566	N	VAL	A	113	-27.546	88.978	30.137	1.00	54.82	A	N
ATOM	567	CA	VAL	A	113	-27.194	88.859	31.546	1.00	53.44	A	C
ATOM	568	CB	VAL	A	113	-25.919	88.004	31.799	1.00	51.44	A	C
ATOM	569	CG1	VAL	A	113	-24.759	88.490	30.977	1.00	47.97	A	C
ATOM	570	CG2	VAL	A	113	-25.572	88.046	33.278	1.00	50.28	A	C
ATOM	571	C	VAL	A	113	-26.955	90.227	32.123	1.00	54.92	A	C
ATOM	572	O	VAL	A	113	-26.845	91.206	31.389	1.00	57.43	A	O
ATOM	573	N	PHE	A	114	-26.867	90.297	33.443	1.00	55.01	A	N
ATOM	574	CA	PHE	A	114	-26.631	91.560	34.115	1.00	54.91	A	C
ATOM	575	CB	PHE	A	114	-25.277	92.142	33.725	1.00	51.81	A	C
ATOM	576	CG	PHE	A	114	-24.130	91.350	34.192	1.00	50.25	A	C
ATOM	577	CD1	PHE	A	114	-23.151	90.934	33.304	1.00	50.28	A	C
ATOM	578	CD2	PHE	A	114	-24.035	90.996	35.522	1.00	50.54	A	C
ATOM	579	CE1	PHE	A	114	-22.093	90.165	33.738	1.00	50.20	A	C
ATOM	580	CE2	PHE	A	114	-22.989	90.230	35.974	1.00	51.24	A	C
ATOM	581	CZ	PHE	A	114	-22.010	89.809	35.080	1.00	52.11	A	C
ATOM	582	C	PHE	A	114	-27.669	92.570	33.723	1.00	56.67	A	C
ATOM	583	O	PHE	A	114	-27.325	93.724	33.539	1.00	58.74	A	O
ATOM	584	N	SER	A	115	-28.927	92.184	33.567	1.00	58.18	A	N
ATOM	585	CA	SER	A	115	-29.884	93.206	33.182	1.00	60.31	A	C
ATOM	586	CB	SER	A	115	-30.163	93.122	31.676	1.00	59.40	A	C
ATOM	587	CG	SER	A	115	-31.390	92.485	31.403	1.00	61.82	A	O
ATOM	588	C	SER	A	115	-31.183	93.249	33.982	1.00	62.32	A	C
ATOM	589	O	SER	A	115	-31.709	92.218	34.388	1.00	60.79	A	O
ATOM	590	N	ASN	A	116	-31.667	94.473	34.220	1.00	66.51	A	N
ATOM	591	CA	ASN	A	116	-32.900	94.731	34.976	1.00	69.32	A	C
ATOM	592	CB	ASN	A	116	-33.306	96.223	34.873	1.00	70.77	A	C
ATOM	593	CG	ASN	A	116	-33.991	96.758	36.149	1.00	72.73	A	C
ATOM	594	OD1	ASN	A	116	-34.856	96.095	36.745	1.00	73.36	A	O
ATOM	595	ND2	ASN	A	116	-33.615	97.973	36.551	1.00	73.16	A	N
ATOM	596	C	ASN	A	116	-33.999	93.863	34.383	1.00	69.09	A	C

Figure 1

ATOM	597	O	ASN	A	116	-34.218	93.862	33.178	1.00	67.03	A	O
ATOM	598	N	GLY	A	117	-34.705	93.133	35.216	1.00	15.00	A	
ATOM	599	CA	GLY	A	117	-35.754	92.214	34.817	1.00	15.00	A	
ATOM	600	C	GLY	A	117	-36.596	92.753	33.676	1.00	15.00	A	
ATOM	601	O	GLY	A	117	-36.836	92.012	32.686	1.00	71.45	A	
ATOM	602	N	ALA	A	118	-37.142	93.963	33.746	1.00	62.90	A	N
ATOM	603	CA	ALA	A	118	-38.003	94.513	32.694	1.00	61.34	A	C
ATOM	604	CB	ALA	A	118	-38.360	95.962	33.028	1.00	61.29	A	C
ATOM	605	C	ALA	A	118	-37.358	94.430	31.299	1.00	61.36	A	C
ATOM	606	O	ALA	A	118	-37.903	93.809	30.392	1.00	64.60	A	O
ATOM	607	N	LYS	A	119	-36.202	95.109	31.131	1.00	15.00	A	
ATOM	608	CA	LYS	A	119	-35.467	95.036	29.875	1.00	15.00	A	
ATOM	609	CB	LYS	A	119	-34.242	95.952	29.924	1.00	15.00	A	
ATOM	610	CG	LYS	A	119	-34.574	97.435	29.910	1.00	15.00	A	
ATOM	611	CD	LYS	A	119	-33.313	98.283	29.935	1.00	15.00	A	
ATOM	612	CE	LYS	A	119	-33.645	99.767	29.921	1.00	15.00	A	
ATOM	613	NZ	LYS	A	119	-32.418	100.611	29.945	1.00	15.00	A	
ATOM	614	C	LYS	A	119	-35.030	93.605	29.579	1.00	15.00	A	
ATOM	615	O	LYS	A	119	-34.938	93.180	28.460	1.00	62.88	A	
ATOM	616	N	TRP	A	120	-34.733	92.930	30.693	1.00	59.37	A	N
ATOM	617	CA	TRP	A	120	-34.259	91.562	30.632	1.00	54.99	A	C
ATOM	618	CB	TRP	A	120	-33.947	91.088	32.043	1.00	51.94	A	C
ATOM	619	CG	TRP	A	120	-33.619	89.657	32.131	1.00	49.03	A	C
ATOM	620	CD	TRP	A	120	-34.390	88.652	32.794	1.00	47.45	A	C
ATOM	621	CE2	TRP	A	120	-33.733	87.420	32.594	1.00	46.75	A	C
ATOM	622	CE3	TRP	A	120	-35.571	88.671	33.548	1.00	45.26	A	C
ATOM	623	CD1	TRP	A	120	-32.557	89.020	31.568	1.00	47.88	A	C
ATOM	624	NE1	TRP	A	120	-32.617	87.675	31.838	1.00	48.19	A	N
ATOM	625	CZ2	TRP	A	120	-34.222	86.218	33.105	1.00	45.87	A	C
ATOM	626	CZ3	TRP	A	120	-36.055	87.482	34.055	1.00	45.11	A	C
ATOM	627	CH2	TRP	A	120	-35.380	86.270	33.836	1.00	45.90	A	C
ATOM	628	C	TRP	A	120	-35.261	90.641	29.960	1.00	55.50	A	C
ATOM	629	O	TRP	A	120	-34.948	89.987	28.956	1.00	54.26	A	O
ATOM	630	N	LYS	A	121	-36.465	90.598	30.520	1.00	55.08	A	N
ATOM	631	CA	LYS	A	121	-37.547	89.771	30.002	1.00	55.97	A	C
ATOM	632	CB	LYS	A	121	-38.887	90.274	30.538	1.00	57.28	A	C
ATOM	633	CG	LYS	A	121	-39.265	89.739	31.911	1.00	60.42	A	C
ATOM	634	CD	LYS	A	121	-39.674	88.260	31.828	1.00	65.13	A	C
ATOM	635	CE	LYS	A	121	-40.096	87.679	33.192	1.00	67.60	A	C
ATOM	636	NZ	LYS	A	121	-40.534	86.237	33.118	1.00	69.23	A	N
ATOM	637	C	LYS	A	121	-37.577	89.775	28.487	1.00	56.27	A	C
ATOM	638	O	LYS	A	121	-37.457	88.730	27.841	1.00	56.64	A	O
ATOM	639	N	GLU	A	122	-37.726	90.958	27.918	1.00	55.63	A	N
ATOM	640	CA	GLU	A	122	-37.788	91.069	26.482	1.00	55.87	A	C
ATOM	641	CB	GLU	A	122	-38.047	92.514	26.097	1.00	57.51	A	C
ATOM	642	CG	GLU	A	122	-39.219	93.079	26.850	1.00	59.95	A	C
ATOM	643	CD	GLU	A	122	-39.998	94.084	26.041	1.00	62.13	A	C
ATOM	644	OE1	GLU	A	122	-40.895	94.735	26.622	1.00	64.25	A	O
ATOM	645	OE2	GLU	A	122	-39.723	94.218	24.826	1.00	62.31	A	O
ATOM	646	C	GLU	A	122	-36.559	90.540	25.767	1.00	55.35	A	C
ATOM	647	O	GLU	A	122	-36.674	89.618	24.962	1.00	56.73	A	O
ATOM	648	N	ILE	A	123	-35.387	91.095	26.067	1.00	53.02	A	N
ATOM	649	CA	ILE	A	123	-34.162	90.662	25.400	1.00	50.76	A	C
ATOM	650	CB	ILE	A	123	-32.931	91.452	25.885	1.00	51.04	A	C
ATOM	651	CG2	ILE	A	123	-31.729	91.158	24.976	1.00	48.91	A	C
ATOM	652	CG1	ILE	A	123	-33.214	92.949	25.823	1.00	50.62	A	C
ATOM	653	CD1	ILE	A	123	-33.355	93.462	24.417	1.00	50.22	A	C
ATOM	654	C	ILE	A	123	-33.857	89.181	25.564	1.00	50.27	A	C
ATOM	655	O	ILE	A	123	-33.243	88.573	24.691	1.00	50.92	A	O
ATOM	656	N	ARG	A	124	-34.263	88.587	26.677	1.00	48.30	A	N
ATOM	657	CA	ARG	A	124	-33.999	87.168	26.865	1.00	46.31	A	C
ATOM	658	CB	ARG	A	124	-34.199	86.760	28.321	1.00	46.92	A	C
ATOM	659	CG	ARG	A	124	-34.110	85.262	28.539	1.00	45.73	A	C
ATOM	660	CD	ARG	A	124	-34.463	84.905	29.967	1.00	46.80	A	C
ATOM	661	NE	ARG	A	124	-34.436	83.458	30.186	1.00	46.78	A	N
ATOM	662	CZ	ARG	A	124	-33.340	82.753	30.462	1.00	45.67	A	C
ATOM	663	NH1	ARG	A	124	-32.163	83.360	30.571	1.00	45.03	A	N
ATOM	664	NH2	ARG	A	124	-33.420	81.436	30.596	1.00	42.11	A	N
ATOM	665	C	ARG	A	124	-34.969	86.387	26.016	1.00	45.52	A	C
ATOM	666	O	ARG	A	124	-34.598	85.423	25.359	1.00	43.86	A	O
ATOM	667	N	ARG	A	125	-36.223	86.827	26.039	1.00	46.96	A	N
ATOM	668	CA	ARG	A	125	-37.288	86.177	25.291	1.00	48.34	A	C
ATOM	669	CB	ARG	A	125	-38.604	86.937	25.464	1.00	51.76	A	C
ATOM	670	CG	ARG	A	125	-39.801	86.271	24.785	1.00	56.56	A	C
ATOM	671	CD	ARG	A	125	-40.308	87.074	23.582	1.00	62.17	A	C

Figure 1

ATOM	672	NE	ARG	A	125	-41.133	86.271	22.664	1.00	67.17	A	N
ATOM	673	CZ	ARG	A	125	-42.443	86.433	22.465	1.00	69.41	A	C
ATOM	674	NH1	ARG	A	125	-43.089	85.650	21.601	1.00	69.86	A	N
ATOM	675	NH2	ARG	A	125	-43.110	87.376	23.126	1.00	70.46	A	N
ATOM	676	C	ARG	A	125	-36.934	86.103	23.822	1.00	47.60	A	C
ATOM	677	O	ARG	A	125	-37.058	85.060	23.200	1.00	47.93	A	O
ATOM	678	N	PHE	A	126	-36.487	87.220	23.273	1.00	46.76	A	N
ATOM	679	CA	PHE	A	126	-36.119	87.293	21.875	1.00	45.50	A	C
ATOM	680	CB	PHE	A	126	-35.802	88.740	21.516	1.00	46.21	A	C
ATOM	681	CG	PHE	A	126	-35.112	88.892	20.209	1.00	45.92	A	C
ATOM	682	CD1	PHE	A	126	-33.734	88.741	20.115	1.00	46.34	A	C
ATOM	683	CD2	PHE	A	126	-35.847	89.121	19.059	1.00	44.48	A	C
ATOM	684	CE1	PHE	A	126	-33.103	88.811	18.891	1.00	47.70	A	C
ATOM	685	CE2	PHE	A	126	-35.231	89.192	17.836	1.00	44.86	A	C
ATOM	686	CZ	PHE	A	126	-33.856	89.036	17.744	1.00	46.97	A	C
ATOM	687	C	PHE	A	126	-34.928	86.414	21.541	1.00	45.10	A	C
ATOM	688	O	PHE	A	126	-34.920	85.723	20.527	1.00	45.58	A	O
ATOM	689	N	SER	A	127	-33.913	86.465	22.396	1.00	44.90	A	N
ATOM	690	CA	SER	A	127	-32.694	85.689	22.216	1.00	43.69	A	C
ATOM	691	CB	SER	A	127	-31.740	85.938	23.383	1.00	43.27	A	C
ATOM	692	OG	SER	A	127	-31.337	87.293	23.436	1.00	41.41	A	O
ATOM	693	C	SER	A	127	-32.997	84.208	22.127	1.00	43.64	A	C
ATOM	694	O	SER	A	127	-32.509	83.515	21.235	1.00	43.64	A	O
ATOM	695	N	LEU	A	128	-33.802	83.722	23.059	1.00	43.63	A	N
ATOM	696	CA	LEU	A	128	-34.154	82.319	23.067	1.00	45.47	A	C
ATOM	697	CB	LEU	A	128	-34.996	82.005	24.291	1.00	43.12	A	C
ATOM	698	CG	LEU	A	128	-34.133	81.732	25.525	1.00	41.00	A	C
ATOM	699	CD1	LEU	A	128	-35.043	81.569	26.704	1.00	39.88	A	C
ATOM	700	CD2	LEU	A	128	-33.252	80.491	25.321	1.00	38.44	A	C
ATOM	701	C	LEU	A	128	-34.863	81.842	21.809	1.00	48.12	A	C
ATOM	702	O	LEU	A	128	-34.528	80.780	21.285	1.00	49.59	A	O
ATOM	703	N	MET	A	129	-35.831	82.612	21.315	1.00	50.88	A	N
ATOM	704	CA	MET	A	129	-36.556	82.220	20.108	1.00	52.84	A	C
ATOM	705	CB	MET	A	129	-37.847	83.018	19.968	1.00	55.20	A	C
ATOM	706	CG	MET	A	129	-38.785	82.826	21.146	1.00	60.77	A	C
ATOM	707	SD	MET	A	129	-40.513	83.278	20.802	1.00	66.89	A	S
ATOM	708	CE	MET	A	129	-40.336	84.979	20.156	1.00	65.46	A	C
ATOM	709	C	MET	A	129	-35.732	82.350	18.839	1.00	52.57	A	C
ATOM	710	O	MET	A	129	-36.212	82.058	17.753	1.00	53.90	A	O
ATOM	711	N	THR	A	130	-34.489	82.789	18.974	1.00	52.46	A	N
ATOM	712	CA	THR	A	130	-33.616	82.912	17.818	1.00	52.38	A	C
ATOM	713	CB	THR	A	130	-32.886	84.276	17.772	1.00	53.59	A	C
ATOM	714	OG1	THR	A	130	-32.002	84.387	18.897	1.00	55.82	A	O
ATOM	715	CG2	THR	A	130	-33.892	85.428	17.789	1.00	53.91	A	C
ATOM	716	C	THR	A	130	-32.564	81.825	17.907	1.00	51.33	A	C
ATOM	717	O	THR	A	130	-31.996	81.425	16.897	1.00	52.08	A	O
ATOM	718	N	LEU	A	131	-32.302	81.365	19.129	1.00	49.85	A	N
ATOM	719	CA	LEU	A	131	-31.308	80.325	19.376	1.00	48.34	A	C
ATOM	720	CB	LEU	A	131	-30.756	80.449	20.791	1.00	47.37	A	C
ATOM	721	CG	LEU	A	131	-29.585	81.407	20.941	1.00	46.87	A	C
ATOM	722	CD1	LEU	A	131	-29.336	81.735	22.401	1.00	46.14	A	C
ATOM	723	CD2	LEU	A	131	-28.363	80.767	20.318	1.00	47.51	A	C
ATOM	724	C	LEU	A	131	-31.898	78.948	19.177	1.00	47.86	A	C
ATOM	725	O	LEU	A	131	-31.283	77.939	19.519	1.00	47.61	A	O
ATOM	726	N	ARG	A	132	-33.107	78.918	18.633	1.00	48.01	A	N
ATOM	727	CA	ARG	A	132	-33.793	77.667	18.362	1.00	48.97	A	C
ATOM	728	CB	ARG	A	132	-35.264	77.938	18.068	1.00	51.30	A	C
ATOM	729	CG	ARG	A	132	-35.963	78.854	19.062	1.00	53.99	A	C
ATOM	730	CD	ARG	A	132	-37.400	79.065	18.629	1.00	58.79	A	C
ATOM	731	NE	ARG	A	132	-37.480	79.211	17.171	1.00	63.21	A	N
ATOM	732	CZ	ARG	A	132	-38.418	79.891	16.516	1.00	64.60	A	C
ATOM	733	NH1	ARG	A	132	-38.387	79.946	15.190	1.00	65.17	A	N
ATOM	734	NH2	ARG	A	132	-39.369	80.534	17.180	1.00	65.96	A	N
ATOM	735	C	ARG	A	132	-33.119	77.094	17.124	1.00	47.80	A	C
ATOM	736	O	ARG	A	132	-32.733	77.850	16.239	1.00	48.15	A	O
ATOM	737	N	ASN	A	133	-32.986	75.775	17.043	1.00	46.88	A	N
ATOM	738	CA	ASN	A	133	-32.330	75.154	15.891	1.00	46.90	A	C
ATOM	739	CB	ASN	A	133	-32.549	73.639	15.903	1.00	46.63	A	C
ATOM	740	CG	ASN	A	133	-31.455	72.882	15.162	1.00	47.62	A	C
ATOM	741	OD1	ASN	A	133	-31.632	71.727	14.785	1.00	49.61	A	O
ATOM	742	ND2	ASN	A	133	-30.315	73.528	14.962	1.00	47.53	A	N
ATOM	743	C	ASN	A	133	-32.769	75.716	14.530	1.00	47.39	A	C
ATOM	744	O	ASN	A	133	-32.036	75.594	13.547	1.00	46.25	A	O
ATOM	745	N	PHE	A	134	-33.961	76.318	14.483	1.00	49.02	A	N
ATOM	746	CA	PHE	A	134	-34.520	76.916	13.260	1.00	50.18	A	C

Figure 1

ATOM	747	CB	PHE	A	134	-35.568	75.993	12.636	1.00	49.20	A	C
ATOM	748	CG	PHE	A	134	-35.010	74.691	12.152	1.00	49.20	A	C
ATOM	749	CD1	PHE	A	134	-34.349	74.611	10.931	1.00	49.32	A	C
ATOM	750	CD2	PHE	A	134	-35.062	73.556	12.962	1.00	48.67	A	C
ATOM	751	CE1	PHE	A	134	-33.738	73.420	10.531	1.00	48.88	A	C
ATOM	752	CE2	PHE	A	134	-34.455	72.372	12.570	1.00	46.13	A	C
ATOM	753	CZ	PHE	A	134	-33.791	72.304	11.358	1.00	47.35	A	C
ATOM	754	C	PHE	A	134	-35.173	78.261	13.560	1.00	51.73	A	C
ATOM	755	O	PHE	A	134	-35.983	78.745	12.776	1.00	53.08	A	O
ATOM	756	N	GLY	A	135	-34.819	78.858	14.693	1.00	52.77	A	N
ATOM	757	CA	GLY	A	135	-35.401	80.132	15.065	1.00	55.56	A	C
ATOM	758	C	GLY	A	135	-35.030	81.282	14.145	1.00	58.23	A	C
ATOM	759	O	GLY	A	135	-35.347	82.436	14.434	1.00	59.36	A	O
ATOM	760	N	MET	A	136	-34.355	80.986	13.038	1.00	59.36	A	N
ATOM	761	CA	MET	A	136	-33.958	82.024	12.085	1.00	60.33	A	C
ATOM	762	CB	MET	A	136	-32.959	83.003	12.732	1.00	58.84	A	C
ATOM	763	CG	MET	A	136	-31.771	82.345	13.424	1.00	58.09	A	C
ATOM	764	SD	MET	A	136	-30.638	83.477	14.301	1.00	57.30	A	S
ATOM	765	CE	MET	A	136	-29.056	82.763	13.873	1.00	54.57	A	C
ATOM	766	C	MET	A	136	-33.351	81.421	10.818	1.00	61.93	A	C
ATOM	767	O	MET	A	136	-32.873	80.287	10.829	1.00	62.78	A	O
ATOM	768	N	GLY	A	137	-33.401	82.172	9.724	1.00	62.78	A	N
ATOM	769	CA	GLY	A	137	-32.845	81.702	8.465	1.00	64.09	A	C
ATOM	770	C	GLY	A	137	-33.380	80.383	7.933	1.00	64.96	A	C
ATOM	771	O	GLY	A	137	-34.485	79.946	8.262	1.00	65.79	A	O
ATOM	772	N	LYS	A	138	-32.578	79.759	7.080	1.00	65.58	A	N
ATOM	773	CA	LYS	A	138	-32.905	78.475	6.470	1.00	65.76	A	C
ATOM	774	CB	LYS	A	138	-32.940	78.588	4.931	1.00	68.51	A	C
ATOM	775	CG	LYS	A	138	-34.226	79.196	4.347	1.00	71.45	A	C
ATOM	776	CD	LYS	A	138	-34.498	78.709	2.907	1.00	73.91	A	C
ATOM	777	CE	LYS	A	138	-33.369	79.076	1.925	1.00	75.37	A	C
ATOM	778	NZ	LYS	A	138	-33.613	78.559	0.533	1.00	75.79	A	N
ATOM	779	C	LYS	A	138	-31.799	77.513	6.887	1.00	63.97	A	C
ATOM	780	O	LYS	A	138	-31.791	76.335	6.524	1.00	64.44	A	O
ATOM	781	N	ARG	A	139	-30.855	78.046	7.649	1.00	60.95	A	N
ATOM	782	CA	ARG	A	139	-29.728	77.281	8.138	1.00	57.95	A	C
ATOM	783	CB	ARG	A	139	-28.459	78.109	7.955	1.00	57.45	A	C
ATOM	784	CG	ARG	A	139	-27.168	77.358	8.173	1.00	58.21	A	C
ATOM	785	CD	ARG	A	139	-25.993	78.181	7.671	1.00	58.90	A	C
ATOM	786	NE	ARG	A	139	-24.703	77.523	7.866	1.00	60.11	A	N
ATOM	787	CZ	ARG	A	139	-24.402	76.300	7.438	1.00	60.54	A	C
ATOM	788	NH1	ARG	A	139	-23.195	75.807	7.669	1.00	60.64	A	N
ATOM	789	NH2	ARG	A	139	-25.300	75.563	6.791	1.00	61.00	A	N
ATOM	790	C	ARG	A	139	-30.017	77.009	9.616	1.00	56.35	A	C
ATOM	791	O	ARG	A	139	-30.518	77.881	10.318	1.00	56.84	A	O
ATOM	792	N	SER	A	140	-29.720	75.800	10.081	1.00	53.54	A	N
ATOM	793	CA	SER	A	140	-29.969	75.425	11.472	1.00	50.13	A	C
ATOM	794	CB	SER	A	140	-30.388	73.974	11.546	1.00	49.35	A	C
ATOM	795	OG	SER	A	140	-29.270	73.178	11.191	1.00	48.55	A	O
ATOM	796	C	SER	A	140	-28.733	75.556	12.337	1.00	48.08	A	C
ATOM	797	O	SER	A	140	-27.612	75.389	11.864	1.00	48.22	A	O
ATOM	798	N	ILE	A	141	-28.951	75.808	13.620	1.00	44.92	A	N
ATOM	799	CA	ILE	A	141	-27.859	75.911	14.570	1.00	41.97	A	C
ATOM	800	CB	ILE	A	141	-28.420	76.084	15.977	1.00	41.15	A	C
ATOM	801	CG2	ILE	A	141	-27.345	75.906	17.037	1.00	39.54	A	C
ATOM	802	CG1	ILE	A	141	-29.042	77.458	16.067	1.00	42.31	A	C
ATOM	803	CD1	ILE	A	141	-29.648	77.715	17.373	1.00	45.27	A	C
ATOM	804	C	ILE	A	141	-27.016	74.648	14.508	1.00	40.77	A	C
ATOM	805	O	ILE	A	141	-25.800	74.686	14.686	1.00	40.02	A	O
ATOM	806	N	GLU	A	142	-27.670	73.525	14.255	1.00	38.02	A	N
ATOM	807	CA	GLU	A	142	-26.952	72.285	14.181	1.00	36.75	A	C
ATOM	808	CB	GLU	A	142	-27.912	71.116	14.145	1.00	37.54	A	C
ATOM	809	CG	GLU	A	142	-27.193	69.813	14.360	1.00	38.52	A	C
ATOM	810	CD	GLU	A	142	-28.114	68.644	14.414	1.00	38.04	A	C
ATOM	811	OE1	GLU	A	142	-29.193	68.765	15.022	1.00	38.75	A	O
ATOM	812	OE2	GLU	A	142	-27.752	67.594	13.856	1.00	38.20	A	O
ATOM	813	C	GLU	A	142	-26.071	72.246	12.949	1.00	36.94	A	C
ATOM	814	O	GLU	A	142	-25.004	71.630	12.947	1.00	34.74	A	O
ATOM	815	N	ASP	A	143	-26.528	72.884	11.884	1.00	37.02	A	N
ATOM	816	CA	ASP	A	143	-25.741	72.915	10.671	1.00	38.35	A	C
ATOM	817	CB	ASP	A	143	-26.511	73.578	9.550	1.00	41.42	A	C
ATOM	818	CG	ASP	A	143	-27.119	72.573	8.623	1.00	45.89	A	C
ATOM	819	OD1	ASP	A	143	-26.479	71.504	8.440	1.00	47.43	A	O
ATOM	820	OD2	ASP	A	143	-28.216	72.853	8.078	1.00	47.48	A	O
ATOM	821	C	ASP	A	143	-24.462	73.665	10.905	1.00	38.09	A	C

12/514

Figure 1

ATOM	822	O	ASP	A	143	-23.436	73.378	10.297	1.00	39.21	A	O
ATOM	823	N	ARG	A	144	-24.549	74.640	11.799	1.00	37.15	A	N
ATOM	824	CA	ARG	A	144	-23.431	75.480	12.162	1.00	35.62	A	C
ATOM	825	CB	ARG	A	144	-23.933	76.702	12.901	1.00	35.22	A	C
ATOM	826	CG	ARG	A	144	-25.028	77.363	12.167	1.00	36.79	A	C
ATOM	827	CD	ARG	A	144	-25.226	78.804	12.568	1.00	36.64	A	C
ATOM	828	NE	ARG	A	144	-25.520	79.558	11.356	1.00	37.59	A	N
ATOM	829	CZ	ARG	A	144	-26.435	80.508	11.256	1.00	38.39	A	C
ATOM	830	NH1	ARG	A	144	-27.172	80.846	12.306	1.00	39.75	A	N
ATOM	831	NH2	ARG	A	144	-26.620	81.103	10.091	1.00	39.75	A	N
ATOM	832	C	ARG	A	144	-22.474	74.721	13.041	1.00	35.95	A	C
ATOM	833	O	ARG	A	144	-21.265	74.718	12.801	1.00	37.70	A	O
ATOM	834	N	VAL	A	145	-23.028	74.111	14.073	1.00	15.00	A	
ATOM	835	CA	VAL	A	145	-22.175	73.315	14.947	1.00	15.00	A	
ATOM	836	CB	VAL	A	145	-22.968	72.757	16.146	1.00	15.00	A	
ATOM	837	CG1	VAL	A	145	-22.102	71.794	16.943	1.00	15.00	A	
ATOM	838	CG2	VAL	A	145	-23.456	73.895	17.027	1.00	15.00	A	
ATOM	839	C	VAL	A	145	-21.550	72.150	14.187	1.00	15.00	A	
ATOM	840	O	VAL	A	145	-20.401	71.868	14.315	1.00	32.67	A	
ATOM	841	N	GLN	A	146	-22.402	71.551	13.366	1.00	34.18	A	N
ATOM	842	CA	GLN	A	146	-21.913	70.453	12.562	1.00	35.76	A	C
ATOM	843	CB	GLN	A	146	-23.043	69.844	11.754	1.00	36.99	A	C
ATOM	844	CG	GLN	A	146	-23.651	68.638	12.410	1.00	39.76	A	C
ATOM	845	CD	GLN	A	146	-25.016	68.305	11.871	1.00	41.26	A	C
ATOM	846	OE1	GLN	A	146	-25.574	67.270	12.199	1.00	44.85	A	O
ATOM	847	NE2	GLN	A	146	-25.566	69.177	11.045	1.00	41.78	A	N
ATOM	848	C	GLN	A	146	-20.836	70.947	11.632	1.00	35.69	A	C
ATOM	849	O	GLN	A	146	-19.875	70.236	11.361	1.00	34.57	A	O
ATOM	850	N	GLU	A	147	-20.987	72.175	11.152	1.00	36.94	A	N
ATOM	851	CA	GLU	A	147	-20.011	72.717	10.229	1.00	38.92	A	C
ATOM	852	CB	GLU	A	147	-20.537	73.952	9.549	1.00	39.06	A	C
ATOM	853	CG	GLU	A	147	-19.736	74.249	8.323	1.00	42.53	A	C
ATOM	854	CD	GLU	A	147	-19.530	75.714	8.117	1.00	44.76	A	C
ATOM	855	OE1	GLU	A	147	-20.259	76.501	8.753	1.00	46.09	A	O
ATOM	856	OE2	GLU	A	147	-18.643	76.082	7.312	1.00	47.73	A	O
ATOM	857	C	GLU	A	147	-18.731	73.089	10.918	1.00	40.05	A	C
ATOM	858	O	GLU	A	147	-17.643	72.974	10.352	1.00	40.31	A	O
ATOM	859	N	GLU	A	148	-18.879	73.566	12.145	1.00	40.90	A	N
ATOM	860	CA	GLU	A	148	-17.747	73.986	12.932	1.00	40.72	A	C
ATOM	861	CB	GLU	A	148	-18.233	74.815	14.113	1.00	41.46	A	C
ATOM	862	CG	GLU	A	148	-17.145	75.645	14.760	1.00	44.00	A	C
ATOM	863	CD	GLU	A	148	-16.549	76.691	13.809	1.00	44.92	A	C
ATOM	864	OE1	GLU	A	148	-17.309	77.561	13.316	1.00	43.26	A	O
ATOM	865	OE2	GLU	A	148	-15.317	76.632	13.566	1.00	44.21	A	O
ATOM	866	C	GLU	A	148	-17.012	72.745	13.409	1.00	40.38	A	C
ATOM	867	O	GLU	A	148	-15.798	72.761	13.549	1.00	40.91	A	O
ATOM	868	N	ALA	A	149	-17.755	71.665	13.644	1.00	40.56	A	N
ATOM	869	CA	ALA	A	149	-17.190	70.397	14.114	1.00	40.37	A	C
ATOM	870	CB	ALA	A	149	-18.313	69.447	14.510	1.00	38.08	A	C
ATOM	871	C	ALA	A	149	-16.330	69.759	13.049	1.00	40.96	A	C
ATOM	872	O	ALA	A	149	-15.312	69.137	13.348	1.00	40.04	A	O
ATOM	873	N	ARG	A	150	-16.766	69.905	11.800	1.00	44.44	A	N
ATOM	874	CA	ARG	A	150	-16.060	69.353	10.640	1.00	45.97	A	C
ATOM	875	CB	ARG	A	150	-16.901	69.567	9.373	1.00	49.29	A	C
ATOM	876	CG	ARG	A	150	-16.430	68.798	8.131	1.00	54.67	A	C
ATOM	877	CD	ARG	A	150	-16.508	69.664	6.844	1.00	57.99	A	C
ATOM	878	NE	ARG	A	150	-15.353	70.559	6.736	1.00	61.38	A	N
ATOM	879	CZ	ARG	A	150	-15.309	71.667	6.003	1.00	62.75	A	C
ATOM	880	NH1	ARG	A	150	-16.366	72.040	5.291	1.00	64.70	A	N
ATOM	881	NH2	ARG	A	150	-14.208	72.411	6.002	1.00	62.86	A	N
ATOM	882	C	ARG	A	150	-14.709	70.066	10.521	1.00	44.34	A	C
ATOM	883	O	ARG	A	150	-13.703	69.442	10.215	1.00	43.79	A	O
ATOM	884	N	CYS	A	151	-14.692	71.367	10.801	1.00	42.95	A	N
ATOM	885	CA	CYS	A	151	-13.472	72.163	10.724	1.00	42.58	A	C
ATOM	886	CB	CYS	A	151	-13.826	73.635	10.629	1.00	42.73	A	C
ATOM	887	SG	CYS	A	151	-14.939	73.927	9.256	1.00	50.77	A	S
ATOM	888	C	CYS	A	151	-12.553	71.935	11.913	1.00	41.82	A	C
ATOM	889	O	CYS	A	151	-11.336	71.991	11.788	1.00	41.84	A	O
ATOM	890	N	LEU	A	152	-13.143	71.686	13.072	1.00	41.86	A	N
ATOM	891	CA	LEU	A	152	-12.379	71.432	14.272	1.00	41.07	A	C
ATOM	892	CB	LEU	A	152	-13.319	71.225	15.451	1.00	41.54	A	C
ATOM	893	CG	LEU	A	152	-12.799	71.468	16.874	1.00	42.23	A	C
ATOM	894	CD1	LEU	A	152	-13.939	71.219	17.847	1.00	43.20	A	C
ATOM	895	CD2	LEU	A	152	-11.635	70.577	17.205	1.00	42.24	A	C
ATOM	896	C	LEU	A	152	-11.585	70.163	14.030	1.00	42.07	A	C

Figure 1

ATOM	897	O	LEU	A	152	-10.477	70.007	14.528	1.00	41.27	A	O
ATOM	898	N	VAL	A	153	-12.149	69.255	13.245	1.00	44.27	A	N
ATOM	899	CA	VAL	A	153	-11.473	67.994	12.964	1.00	46.10	A	C
ATOM	900	CB	VAL	A	153	-12.446	66.945	12.445	1.00	43.71	A	C
ATOM	901	CG1	VAL	A	153	-11.693	65.660	12.133	1.00	41.95	A	C
ATOM	902	CG2	VAL	A	153	-13.521	66.705	13.459	1.00	41.54	A	C
ATOM	903	C	VAL	A	153	-10.349	68.131	11.954	1.00	48.74	A	C
ATOM	904	O	VAL	A	153	-9.381	67.371	11.985	1.00	49.05	A	O
ATOM	905	N	GLU	A	154	-10.478	69.101	11.059	1.00	51.96	A	N
ATOM	906	CA	GLU	A	154	-9.461	69.314	10.042	1.00	54.68	A	C
ATOM	907	CB	GLU	A	154	-10.010	70.194	8.925	1.00	56.49	A	C
ATOM	908	CG	GLU	A	154	-11.382	69.783	8.469	1.00	61.13	A	C
ATOM	909	CD	GLU	A	154	-11.544	69.822	6.960	1.00	64.38	A	C
ATOM	910	OE1	GLU	A	154	-12.699	69.729	6.477	1.00	64.26	A	O
ATOM	911	OE2	GLU	A	154	-10.517	69.941	6.250	1.00	67.83	A	O
ATOM	912	C	GLU	A	154	-8.241	69.970	10.668	1.00	55.02	A	C
ATOM	913	O	GLU	A	154	-7.109	69.564	10.417	1.00	56.40	A	O
ATOM	914	N	GLU	A	155	-8.471	70.983	11.494	1.00	54.50	A	N
ATOM	915	CA	GLU	A	155	-7.369	71.677	12.135	1.00	53.41	A	C
ATOM	916	CB	GLU	A	155	-7.863	72.910	12.881	1.00	55.67	A	C
ATOM	917	CG	GLU	A	155	-7.413	74.204	12.231	1.00	61.17	A	C
ATOM	918	CD	GLU	A	155	-6.036	74.669	12.703	1.00	64.74	A	C
ATOM	919	OE1	GLU	A	155	-5.135	73.812	12.888	1.00	66.30	A	O
ATOM	920	OE2	GLU	A	155	-5.855	75.901	12.885	1.00	67.32	A	O
ATOM	921	C	GLU	A	155	-6.617	70.772	13.079	1.00	52.04	A	C
ATOM	922	O	GLU	A	155	-5.412	70.889	13.206	1.00	53.35	A	O
ATOM	923	N	LEU	A	156	-7.318	69.871	13.754	1.00	51.24	A	N
ATOM	924	CA	LEU	A	156	-6.657	68.947	14.675	1.00	49.81	A	C
ATOM	925	CB	LEU	A	156	-7.671	68.095	15.414	1.00	49.98	A	C
ATOM	926	CG	LEU	A	156	-8.401	68.685	16.618	1.00	49.97	A	C
ATOM	927	CD1	LEU	A	156	-9.510	67.741	17.086	1.00	47.99	A	C
ATOM	928	CD2	LEU	A	156	-7.392	68.921	17.724	1.00	50.54	A	C
ATOM	929	C	LEU	A	156	-5.772	68.023	13.895	1.00	50.32	A	C
ATOM	930	O	LEU	A	156	-4.799	67.492	14.416	1.00	51.26	A	O
ATOM	931	N	ARG	A	157	-6.127	67.810	12.636	1.00	51.45	A	N
ATOM	932	CA	ARG	A	157	-5.358	66.916	11.793	1.00	51.47	A	C
ATOM	933	CB	ARG	A	157	-6.180	66.535	10.574	1.00	49.80	A	C
ATOM	934	CG	ARG	A	157	-5.722	65.252	9.923	1.00	51.01	A	C
ATOM	935	CD	ARG	A	157	-6.486	65.017	8.624	1.00	51.96	A	C
ATOM	936	NE	ARG	A	157	-7.909	64.787	8.855	1.00	50.12	A	N
ATOM	937	CZ	ARG	A	157	-8.402	63.683	9.408	1.00	49.07	A	C
ATOM	938	NH1	ARG	A	157	-7.595	62.705	9.787	1.00	48.13	A	N
ATOM	939	NH2	ARG	A	157	-9.706	63.552	9.576	1.00	47.33	A	N
ATOM	940	C	ARG	A	157	-4.057	67.588	11.388	1.00	52.02	A	C
ATOM	941	O	ARG	A	157	-3.128	66.932	10.920	1.00	52.55	A	O
ATOM	942	N	LYS	A	158	-3.994	68.897	11.603	1.00	52.73	A	N
ATOM	943	CA	LYS	A	158	-2.822	69.682	11.274	1.00	54.42	A	C
ATOM	944	CB	LYS	A	158	-3.194	71.144	11.158	1.00	55.76	A	C
ATOM	945	CG	LYS	A	158	-4.128	71.413	10.034	1.00	58.77	A	C
ATOM	946	CD	LYS	A	158	-4.420	72.883	9.972	1.00	60.65	A	C
ATOM	947	CE	LYS	A	158	-5.330	73.197	8.821	1.00	62.55	A	C
ATOM	948	NZ	LYS	A	158	-5.401	74.674	8.718	1.00	66.32	A	N
ATOM	949	C	LYS	A	158	-1.705	69.554	12.282	1.00	55.37	A	C
ATOM	950	O	LYS	A	158	-0.538	69.724	11.939	1.00	56.64	A	O
ATOM	951	N	THR	A	159	-2.051	69.258	13.525	1.00	56.23	A	N
ATOM	952	CA	THR	A	159	-1.034	69.126	14.556	1.00	57.27	A	C
ATOM	953	CB	THR	A	159	-1.655	68.818	15.926	1.00	57.46	A	C
ATOM	954	OG1	THR	A	159	-2.130	67.465	15.940	1.00	58.33	A	O
ATOM	955	CG2	THR	A	159	-2.806	69.768	16.218	1.00	55.51	A	C
ATOM	956	C	THR	A	159	-0.037	68.016	14.222	1.00	57.87	A	C
ATOM	957	O	THR	A	159	1.010	67.910	14.853	1.00	58.38	A	O
ATOM	958	N	LYS	A	160	-0.372	67.185	13.242	1.00	59.21	A	N
ATOM	959	CA	LYS	A	160	0.503	66.093	12.814	1.00	61.25	A	C
ATOM	960	CB	LYS	A	160	1.823	66.657	12.250	1.00	63.14	A	C
ATOM	961	CG	LYS	A	160	1.695	67.360	10.889	1.00	64.79	A	C
ATOM	962	CD	LYS	A	160	3.060	67.616	10.250	1.00	67.20	A	C
ATOM	963	CE	LYS	A	160	3.807	66.298	9.963	1.00	68.22	A	C
ATOM	964	NZ	LYS	A	160	5.183	66.471	9.360	1.00	68.99	A	N
ATOM	965	C	LYS	A	160	0.805	65.036	13.892	1.00	61.38	A	C
ATOM	966	O	LYS	A	160	1.893	64.448	13.926	1.00	60.97	A	O
ATOM	967	N	ALA	A	161	-0.163	64.803	14.770	1.00	62.02	A	N
ATOM	968	CA	ALA	A	161	-0.033	63.801	15.824	1.00	62.73	A	C
ATOM	969	CB	ALA	A	161	0.212	62.440	15.209	1.00	63.17	A	C
ATOM	970	C	ALA	A	161	1.054	64.102	16.837	1.00	63.30	A	C
ATOM	971	O	ALA	A	161	1.430	63.236	17.639	1.00	63.14	A	O

Figure 1

ATOM	972	N	SER	A	162	1.561	65.326	16.803	1.00	63.53	A	N
ATOM	973	CA	SER	A	162	2.605	65.712	17.734	1.00	63.72	A	C
ATOM	974	CB	SER	A	162	3.571	66.688	17.071	1.00	65.98	A	C
ATOM	975	OG	SER	A	162	4.714	66.876	17.890	1.00	70.53	A	O
ATOM	976	C	SER	A	162	1.974	66.356	18.952	1.00	61.86	A	C
ATOM	977	O	SER	A	162	0.946	67.023	18.844	1.00	62.38	A	O
ATOM	978	N	PRO	A	163	2.582	66.172	20.129	1.00	59.84	A	N
ATOM	979	CD	PRO	A	163	3.870	65.502	20.363	1.00	59.37	A	C
ATOM	980	CA	PRO	A	163	2.056	66.747	21.370	1.00	58.88	A	C
ATOM	981	CB	PRO	A	163	3.237	66.630	22.324	1.00	59.46	A	C
ATOM	982	CG	PRO	A	163	3.892	65.362	21.869	1.00	60.18	A	C
ATOM	983	C	PRO	A	163	1.581	68.191	21.202	1.00	57.56	A	C
ATOM	984	O	PRO	A	163	2.083	68.912	20.341	1.00	57.25	A	O
ATOM	985	N	CYS	A	164	0.613	68.608	22.020	1.00	56.25	A	N
ATOM	986	CA	CYS	A	164	0.093	69.969	21.939	1.00	54.65	A	C
ATOM	987	CB	CYS	A	164	-0.673	70.163	20.636	1.00	54.58	A	C
ATOM	988	SG	CYS	A	164	-2.435	69.808	20.807	1.00	51.21	A	S
ATOM	989	C	CYS	A	164	-0.858	70.345	23.068	1.00	54.07	A	C
ATOM	990	O	CYS	A	164	-1.360	69.489	23.800	1.00	55.17	A	O
ATOM	991	N	ASP	A	165	-1.114	71.646	23.172	1.00	51.86	A	N
ATOM	992	CA	ASP	A	165	-2.040	72.189	24.150	1.00	49.08	A	C
ATOM	993	CB	ASP	A	165	-1.522	73.513	24.730	1.00	50.98	A	C
ATOM	994	CG	ASP	A	165	-2.350	74.012	25.919	1.00	52.42	A	C
ATOM	995	OD1	ASP	A	165	-2.105	75.142	26.396	1.00	52.79	A	O
ATOM	996	OD2	ASP	A	165	-3.244	73.283	26.387	1.00	54.94	A	O
ATOM	997	C	ASP	A	165	-3.316	72.439	23.358	1.00	46.84	A	C
ATOM	998	O	ASP	A	165	-3.309	73.158	22.343	1.00	48.17	A	O
ATOM	999	N	PRO	A	166	-4.424	71.817	23.785	1.00	43.29	A	N
ATOM	1000	CD	PRO	A	166	-4.462	70.687	24.724	1.00	41.41	A	C
ATOM	1001	CA	PRO	A	166	-5.717	71.966	23.125	1.00	40.20	A	C
ATOM	1002	CB	PRO	A	166	-6.541	70.858	23.745	1.00	41.09	A	C
ATOM	1003	CG	PRO	A	166	-5.527	69.849	24.144	1.00	41.02	A	C
ATOM	1004	C	PRO	A	166	-6.348	73.315	23.397	1.00	37.68	A	C
ATOM	1005	O	PRO	A	166	-7.154	73.809	22.611	1.00	37.11	A	O
ATOM	1006	N	THR	A	167	-5.971	73.916	24.514	1.00	35.02	A	N
ATOM	1007	CA	THR	A	167	-6.565	75.175	24.900	1.00	34.99	A	C
ATOM	1008	CB	THR	A	167	-5.685	75.933	25.852	1.00	34.19	A	C
ATOM	1009	OG1	THR	A	167	-5.161	75.034	26.836	1.00	35.21	A	O
ATOM	1010	CG2	THR	A	167	-6.511	76.997	26.557	1.00	32.68	A	C
ATOM	1011	C	THR	A	167	-6.986	76.135	23.796	1.00	35.64	A	C
ATOM	1012	O	THR	A	167	-8.126	76.584	23.782	1.00	38.31	A	O
ATOM	1013	N	PHE	A	168	-6.091	76.449	22.869	1.00	34.81	A	N
ATOM	1014	CA	PHE	A	168	-6.415	77.391	21.802	1.00	33.50	A	C
ATOM	1015	CB	PHE	A	168	-5.132	77.893	21.134	1.00	34.64	A	C
ATOM	1016	CG	PHE	A	168	-5.372	78.813	19.966	1.00	34.39	A	C
ATOM	1017	CD1	PHE	A	168	-5.305	78.337	18.655	1.00	33.49	A	C
ATOM	1018	CD2	PHE	A	168	-5.722	80.141	20.179	1.00	33.63	A	C
ATOM	1019	CE1	PHE	A	168	-5.591	79.174	17.579	1.00	33.33	A	C
ATOM	1020	CE2	PHE	A	168	-6.012	80.986	19.105	1.00	34.22	A	C
ATOM	1021	CZ	PHE	A	168	-5.947	80.498	17.803	1.00	33.81	A	C
ATOM	1022	C	PHE	A	168	-7.360	76.854	20.744	1.00	33.77	A	C
ATOM	1023	O	PHE	A	168	-8.324	77.532	20.372	1.00	34.04	A	O
ATOM	1024	N	ILE	A	169	-7.076	75.657	20.228	1.00	33.04	A	N
ATOM	1025	CA	ILE	A	169	-7.946	75.056	19.216	1.00	31.16	A	C
ATOM	1026	CB	ILE	A	169	-7.465	73.648	18.802	1.00	29.19	A	C
ATOM	1027	CG2	ILE	A	169	-8.540	72.964	17.987	1.00	31.04	A	C
ATOM	1028	CG1	ILE	A	169	-6.155	73.751	18.013	1.00	29.06	A	C
ATOM	1029	CD1	ILE	A	169	-5.673	72.433	17.363	1.00	23.45	A	C
ATOM	1030	C	ILE	A	169	-9.329	74.953	19.850	1.00	31.16	A	C
ATOM	1031	O	ILE	A	169	-10.297	75.560	19.377	1.00	30.18	A	O
ATOM	1032	N	LEU	A	170	-9.392	74.206	20.944	1.00	30.66	A	N
ATOM	1033	CA	LEU	A	170	-10.615	74.015	21.684	1.00	33.01	A	C
ATOM	1034	CB	LEU	A	170	-10.329	73.274	22.974	1.00	32.78	A	C
ATOM	1035	CG	LEU	A	170	-10.837	71.850	23.058	1.00	34.59	A	C
ATOM	1036	CD1	LEU	A	170	-10.723	71.127	21.702	1.00	34.12	A	C
ATOM	1037	CD2	LEU	A	170	-10.021	71.151	24.136	1.00	33.75	A	C
ATOM	1038	C	LEU	A	170	-11.290	75.329	22.024	1.00	36.23	A	C
ATOM	1039	O	LEU	A	170	-12.493	75.366	22.280	1.00	38.84	A	O
ATOM	1040	N	GLY	A	171	-10.527	76.412	22.059	1.00	36.68	A	N
ATOM	1041	CA	GLY	A	171	-11.123	77.697	22.368	1.00	36.55	A	C
ATOM	1042	C	GLY	A	171	-11.744	78.344	21.144	1.00	37.28	A	C
ATOM	1043	O	GLY	A	171	-12.715	79.089	21.246	1.00	37.69	A	O
ATOM	1044	N	CYS	A	172	-11.200	78.043	19.974	1.00	37.14	A	N
ATOM	1045	CA	CYS	A	172	-11.714	78.634	18.755	1.00	37.77	A	C
ATOM	1046	CB	CYS	A	172	-10.716	78.435	17.620	1.00	38.28	A	C

Figure 1

ATOM	1047	SG	CYS	A	172	-9.163	79.283	17.873	1.00	39.93	A	S
ATOM	1048	C	CYS	A	172	-13.042	78.046	18.344	1.00	37.68	A	C
ATOM	1049	O	CYS	A	172	-13.963	78.755	17.941	1.00	38.54	A	O
ATOM	1050	N	ALA	A	173	-13.126	76.731	18.440	1.00	36.49	A	N
ATOM	1051	CA	ALA	A	173	-14.322	76.029	18.041	1.00	34.61	A	C
ATOM	1052	CB	ALA	A	173	-14.240	74.581	18.499	1.00	36.10	A	C
ATOM	1053	C	ALA	A	173	-15.571	76.694	18.574	1.00	33.15	A	C
ATOM	1054	O	ALA	A	173	-16.352	77.242	17.807	1.00	33.82	A	O
ATOM	1055	N	PRO	A	174	-15.750	76.698	19.904	1.00	32.21	A	N
ATOM	1056	CD	PRO	A	174	-14.773	76.314	20.938	1.00	30.78	A	C
ATOM	1057	CA	PRO	A	174	-16.928	77.300	20.532	1.00	30.68	A	C
ATOM	1058	CB	PRO	A	174	-16.630	77.156	22.016	1.00	30.41	A	C
ATOM	1059	CG	PRO	A	174	-15.666	76.014	22.084	1.00	30.71	A	C
ATOM	1060	C	PRO	A	174	-17.180	78.747	20.145	1.00	31.02	A	C
ATOM	1061	O	PRO	A	174	-18.308	79.140	19.864	1.00	31.28	A	O
ATOM	1062	N	CYS	A	175	-16.113	79.535	20.148	1.00	31.91	A	N
ATOM	1063	CA	CYS	A	175	-16.179	80.947	19.817	1.00	32.91	A	C
ATOM	1064	CB	CYS	A	175	-14.799	81.564	20.006	1.00	34.54	A	C
ATOM	1065	SG	CYS	A	175	-14.733	83.343	19.679	1.00	43.98	A	S
ATOM	1066	C	CYS	A	175	-16.669	81.159	18.384	1.00	32.00	A	C
ATOM	1067	O	CYS	A	175	-17.496	82.033	18.110	1.00	31.12	A	O
ATOM	1068	N	ASN	A	176	-16.163	80.327	17.481	1.00	31.75	A	N
ATOM	1069	CA	ASN	A	176	-16.521	80.390	16.076	1.00	31.54	A	C
ATOM	1070	CB	ASN	A	176	-15.676	79.387	15.282	1.00	31.58	A	C
ATOM	1071	CG	ASN	A	176	-15.027	80.018	14.050	1.00	32.62	A	C
ATOM	1072	OD1	ASN	A	176	-15.651	80.794	13.349	1.00	30.16	A	O
ATOM	1073	ND2	ASN	A	176	-13.771	79.681	13.792	1.00	34.48	A	N
ATOM	1074	C	ASN	A	176	-18.019	80.137	15.858	1.00	30.78	A	C
ATOM	1075	O	ASN	A	176	-18.629	80.711	14.956	1.00	29.78	A	O
ATOM	1076	N	VAL	A	177	-18.613	79.282	16.686	1.00	30.56	A	N
ATOM	1077	CA	VAL	A	177	-20.041	78.989	16.580	1.00	29.05	A	C
ATOM	1078	CB	VAL	A	177	-20.503	77.941	17.634	1.00	28.06	A	C
ATOM	1079	CG1	VAL	A	177	-22.014	77.969	17.769	1.00	29.47	A	C
ATOM	1080	CG2	VAL	A	177	-20.058	76.547	17.234	1.00	25.39	A	C
ATOM	1081	C	VAL	A	177	-20.862	80.261	16.783	1.00	29.46	A	C
ATOM	1082	O	VAL	A	177	-21.721	80.572	15.968	1.00	28.88	A	O
ATOM	1083	N	ILE	A	178	-20.600	80.994	17.867	1.00	30.19	A	N
ATOM	1084	CA	ILE	A	178	-21.341	82.224	18.154	1.00	31.36	A	C
ATOM	1085	CB	ILE	A	178	-20.864	82.872	19.477	1.00	30.60	A	C
ATOM	1086	CG2	ILE	A	178	-21.455	84.248	19.633	1.00	31.81	A	C
ATOM	1087	CG1	ILE	A	178	-21.381	82.078	20.678	1.00	31.09	A	C
ATOM	1088	CD1	ILE	A	178	-20.823	80.697	20.834	1.00	29.91	A	C
ATOM	1089	C	ILE	A	178	-21.275	83.246	17.010	1.00	33.20	A	C
ATOM	1090	O	ILE	A	178	-22.226	84.001	16.797	1.00	31.56	A	O
ATOM	1091	N	CYS	A	179	-20.155	83.259	16.283	1.00	35.80	A	N
ATOM	1092	CA	CYS	A	179	-19.938	84.157	15.142	1.00	38.59	A	C
ATOM	1093	CB	CYS	A	179	-18.499	84.052	14.661	1.00	37.92	A	C
ATOM	1094	SG	CYS	A	179	-17.308	84.897	15.679	1.00	44.53	A	S
ATOM	1095	C	CYS	A	179	-20.850	83.830	13.963	1.00	41.01	A	C
ATOM	1096	O	CYS	A	179	-21.383	84.713	13.295	1.00	41.99	A	O
ATOM	1097	N	SER	A	180	-21.003	82.541	13.699	1.00	43.69	A	N
ATOM	1098	CA	SER	A	180	-21.825	82.061	12.604	1.00	44.63	A	C
ATOM	1099	CB	SER	A	180	-21.553	80.559	12.401	1.00	45.23	A	C
ATOM	1100	OG	SER	A	180	-22.193	80.057	11.238	1.00	47.67	A	O
ATOM	1101	C	SER	A	180	-23.289	82.294	12.967	1.00	44.98	A	C
ATOM	1102	O	SER	A	180	-24.170	82.240	12.111	1.00	46.29	A	O
ATOM	1103	N	ILE	A	181	-23.536	82.563	14.243	1.00	43.92	A	N
ATOM	1104	CA	ILE	A	181	-24.889	82.765	14.729	1.00	43.46	A	C
ATOM	1105	CB	ILE	A	181	-25.071	82.089	16.091	1.00	43.02	A	C
ATOM	1106	CG2	ILE	A	181	-26.466	82.327	16.607	1.00	42.15	A	C
ATOM	1107	CG1	ILE	A	181	-24.780	80.595	15.979	1.00	41.93	A	C
ATOM	1108	CD1	ILE	A	181	-24.676	79.920	17.324	1.00	40.49	A	C
ATOM	1109	C	ILE	A	181	-25.269	84.223	14.870	1.00	44.20	A	C
ATOM	1110	O	ILE	A	181	-26.425	84.550	25.100	1.00	45.43	A	O
ATOM	1111	N	ILE	A	182	-24.297	85.106	14.725	1.00	46.04	A	N
ATOM	1112	CA	ILE	A	182	-24.552	86.538	14.861	1.00	46.87	A	C
ATOM	1113	CB	ILE	A	182	-23.777	87.115	16.086	1.00	46.79	A	C
ATOM	1114	CG2	ILE	A	182	-24.211	88.542	16.362	1.00	45.98	A	C
ATOM	1115	CG1	ILE	A	182	-24.095	86.303	17.342	1.00	45.55	A	C
ATOM	1116	CD1	ILE	A	182	-23.412	86.828	18.586	1.00	46.20	A	C
ATOM	1117	C	ILE	A	182	-24.111	87.251	13.586	1.00	47.28	A	C
ATOM	1118	O	ILE	A	182	-24.747	88.198	13.133	1.00	46.28	A	O
ATOM	1119	N	PHE	A	183	-23.024	86.758	13.008	1.00	48.09	A	N
ATOM	1120	CA	PHE	A	183	-22.461	87.314	11.792	1.00	49.83	A	C
ATOM	1121	CB	PHE	A	183	-20.947	87.391	11.924	1.00	47.78	A	C

Figure 1

ATOM	1122	CG	PHE	A	183	-20.486	88.108	13.144	1.00	45.09	A	C
ATOM	1123	CD1	PHE	A	183	-19.167	88.032	13.539	1.00	44.50	A	C
ATOM	1124	CD2	PHE	A	183	-21.366	88.871	13.893	1.00	45.88	A	C
ATOM	1125	CE1	PHE	A	183	-18.728	88.706	14.664	1.00	46.27	A	C
ATOM	1126	CE2	PHE	A	183	-20.940	89.552	15.025	1.00	46.50	A	C
ATOM	1127	CZ	PHE	A	183	-19.619	89.472	15.413	1.00	46.15	A	C
ATOM	1128	C	PHE	A	183	-22.824	86.406	10.622	1.00	51.99	A	C
ATOM	1129	O	PHE	A	183	-22.487	86.681	9.469	1.00	51.93	A	O
ATOM	1130	N	HIS	A	184	-23.500	85.309	10.937	1.00	54.26	A	N
ATOM	1131	CA	HIS	A	184	-23.919	84.347	9.929	1.00	57.04	A	C
ATOM	1132	CB	HIS	A	184	-24.736	85.040	8.839	1.00	58.34	A	C
ATOM	1133	CG	HIS	A	184	-25.284	84.102	7.811	1.00	61.20	A	C
ATOM	1134	CD2	HIS	A	184	-25.064	84.007	6.477	1.00	62.06	A	C
ATOM	1135	ND1	HIS	A	184	-26.184	83.106	8.122	1.00	61.93	A	N
ATOM	1136	CE1	HIS	A	184	-26.497	82.438	7.027	1.00	62.15	A	C
ATOM	1137	NE2	HIS	A	184	-25.831	82.964	6.015	1.00	62.55	A	N
ATOM	1138	C	HIS	A	184	-22.736	83.644	9.281	1.00	57.30	A	C
ATOM	1139	O	HIS	A	184	-22.878	82.545	8.743	1.00	58.94	A	O
ATOM	1140	N	LYS	A	185	-21.567	84.267	9.334	1.00	56.65	A	N
ATOM	1141	CA	LYS	A	185	-20.390	83.680	8.714	1.00	56.03	A	C
ATOM	1142	CB	LYS	A	185	-19.809	84.674	7.686	1.00	58.53	A	C
ATOM	1143	CG	LYS	A	185	-18.698	84.116	6.780	1.00	60.06	A	C
ATOM	1144	CD	LYS	A	185	-18.079	85.192	5.892	1.00	59.90	A	C
ATOM	1145	CE	LYS	A	185	-16.667	85.564	6.357	1.00	60.83	A	C
ATOM	1146	NZ	LYS	A	185	-16.655	86.030	7.774	1.00	60.91	A	N
ATOM	1147	C	LYS	A	185	-19.331	83.331	9.751	1.00	54.45	A	C
ATOM	1148	O	LYS	A	185	-18.985	84.161	10.589	1.00	55.44	A	O
ATOM	1149	N	ARG	A	186	-18.819	82.107	9.703	1.00	52.11	A	N
ATOM	1150	CA	ARG	A	186	-17.770	81.702	10.634	1.00	50.12	A	C
ATOM	1151	CB	ARG	A	186	-17.726	80.179	10.784	1.00	49.38	A	C
ATOM	1152	CG	ARG	A	186	-17.037	79.456	9.648	1.00	48.39	A	C
ATOM	1153	CD	ARG	A	186	-16.916	77.954	9.889	1.00	49.08	A	C
ATOM	1154	NE	ARG	A	186	-15.874	77.546	10.839	1.00	48.59	A	N
ATOM	1155	CZ	ARG	A	186	-14.598	77.313	10.527	1.00	48.23	A	C
ATOM	1156	NH1	ARG	A	186	-14.155	77.452	9.288	1.00	45.39	A	N
ATOM	1157	NH2	ARG	A	186	-13.768	76.875	11.452	1.00	50.19	A	N
ATOM	1158	C	ARG	A	186	-16.441	82.192	10.065	1.00	50.52	A	C
ATOM	1159	O	ARG	A	186	-16.377	82.639	8.926	1.00	50.42	A	O
ATOM	1160	N	PHE	A	187	-15.380	82.113	10.853	1.00	51.94	A	N
ATOM	1161	CA	PHE	A	187	-14.070	82.565	10.398	1.00	53.53	A	C
ATOM	1162	CB	PHE	A	187	-13.502	83.654	11.322	1.00	53.37	A	C
ATOM	1163	CG	PHE	A	187	-14.367	84.863	11.435	1.00	53.65	A	C
ATOM	1164	CD1	PHE	A	187	-15.366	84.928	12.391	1.00	54.23	A	C
ATOM	1165	CD2	PHE	A	187	-14.217	85.917	10.549	1.00	54.26	A	C
ATOM	1166	CE1	PHE	A	187	-16.215	86.030	12.466	1.00	56.45	A	C
ATOM	1167	CE2	PHE	A	187	-15.056	87.024	10.609	1.00	56.87	A	C
ATOM	1168	CZ	PHE	A	187	-16.063	87.083	11.571	1.00	57.29	A	C
ATOM	1169	C	PHE	A	187	-13.081	81.420	10.367	1.00	54.85	A	C
ATOM	1170	O	PHE	A	187	-13.276	80.400	11.028	1.00	55.43	A	O
ATOM	1171	N	ASP	A	188	-12.016	81.605	9.593	1.00	57.10	A	N
ATOM	1172	CA	ASP	A	188	-10.947	80.626	9.472	1.00	58.85	A	C
ATOM	1173	CB	ASP	A	188	-10.080	80.920	8.228	1.00	60.34	A	C
ATOM	1174	CG	ASP	A	188	-8.991	79.853	7.975	1.00	62.29	A	C
ATOM	1175	OD1	ASP	A	188	-8.083	79.686	8.826	1.00	62.15	A	O
ATOM	1176	OD2	ASP	A	188	-9.044	79.185	6.914	1.00	62.26	A	O
ATOM	1177	C	ASP	A	188	-10.126	80.804	10.740	1.00	59.68	A	C
ATOM	1178	O	ASP	A	188	-9.980	81.914	11.255	1.00	59.52	A	O
ATOM	1179	N	TYR	A	189	-9.605	79.698	11.247	1.00	60.70	A	N
ATOM	1180	CA	TYR	A	189	-8.797	79.723	12.444	1.00	61.22	A	C
ATOM	1181	CB	TYR	A	189	-8.374	78.286	12.801	1.00	61.01	A	C
ATOM	1182	CG	TYR	A	189	-9.525	77.446	13.337	1.00	60.56	A	C
ATOM	1183	CD1	TYR	A	189	-9.333	76.134	13.777	1.00	59.75	A	C
ATOM	1184	CE1	TYR	A	189	-10.404	75.390	14.301	1.00	59.10	A	C
ATOM	1185	CD2	TYR	A	189	-10.809	77.986	13.432	1.00	60.47	A	C
ATOM	1186	CE2	TYR	A	189	-11.867	77.258	13.948	1.00	59.24	A	C
ATOM	1187	CZ	TYR	A	189	-11.666	75.970	14.379	1.00	58.53	A	C
ATOM	1188	OH	TYR	A	189	-12.744	75.288	14.878	1.00	58.88	A	O
ATOM	1189	C	TYR	A	189	-7.585	80.636	12.289	1.00	61.69	A	C
ATOM	1190	O	TYR	A	189	-6.757	80.714	13.186	1.00	62.29	A	O
ATOM	1191	N	LYS	A	190	-7.480	81.336	11.162	1.00	62.67	A	N
ATOM	1192	CA	LYS	A	190	-6.347	82.238	10.940	1.00	63.95	A	C
ATOM	1193	CB	LYS	A	190	-5.540	81.800	9.717	1.00	66.52	A	C
ATOM	1194	CG	LYS	A	190	-4.560	80.647	9.973	1.00	70.33	A	C
ATOM	1195	CD	LYS	A	190	-5.095	79.309	9.444	1.00	73.18	A	C
ATOM	1196	CE	LYS	A	190	-5.302	79.345	7.932	1.00	73.73	A	C

17/514

Figure 1

ATOM	1197	NZ	LYS	A	190	-6.197	78.240	7.466	1.00	73.45	A	N
ATOM	1198	C	LYS	A	190	-6.748	83.700	10.773	1.00	63.06	A	C
ATOM	1199	O	LYS	A	190	-5.971	84.606	11.075	1.00	62.20	A	O
ATOM	1200	N	ASP	A	191	-7.954	83.920	10.268	1.00	62.75	A	N
ATOM	1201	CA	ASP	A	191	-8.477	85.260	10.062	1.00	62.69	A	C
ATOM	1202	CB	ASP	A	191	-9.988	85.167	9.851	1.00	64.65	A	C
ATOM	1203	CG	ASP	A	191	-10.601	86.467	9.393	1.00	66.31	A	C
ATOM	1204	OD1	ASP	A	191	-11.777	86.439	8.973	1.00	67.27	A	O
ATOM	1205	OD2	ASP	A	191	-9.923	87.513	9.458	1.00	68.68	A	O
ATOM	1206	C	ASP	A	191	-8.140	86.141	11.256	1.00	62.47	A	C
ATOM	1207	O	ASP	A	191	-8.399	85.784	12.402	1.00	62.44	A	O
ATOM	1208	N	GLN	A	192	-7.566	87.296	10.989	1.00	15.00	A	
ATOM	1209	CA	GLN	A	192	-7.131	88.234	12.017	1.00	15.00	A	
ATOM	1210	CB	GLN	A	192	-6.410	89.423	11.379	1.00	15.00	A	
ATOM	1211	CG	GLN	A	192	-5.133	89.053	10.643	1.00	15.00	A	
ATOM	1212	CD	GLN	A	192	-4.471	90.248	9.984	1.00	15.00	A	
ATOM	1213	OE1	GLN	A	192	-4.996	91.362	10.025	1.00	15.00	A	
ATOM	1214	NE2	GLN	A	192	-3.315	90.022	9.373	1.00	15.00	A	
ATOM	1215	C	GLN	A	192	-8.316	88.729	12.841	1.00	15.00	A	
ATOM	1216	O	GLN	A	192	-8.218	88.816	14.081	1.00	65.61	A	
ATOM	1217	N	GLN	A	193	-9.420	89.082	12.192	1.00	63.99	A	N
ATOM	1218	CA	GLN	A	193	-10.619	89.547	12.880	1.00	63.01	A	C
ATOM	1219	CB	GLN	A	193	-11.820	89.540	11.937	1.00	65.19	A	C
ATOM	1220	CG	GLN	A	193	-11.703	90.479	10.762	1.00	68.69	A	C
ATOM	1221	CD	GLN	A	193	-12.944	90.461	9.885	1.00	70.19	A	C
ATOM	1222	OE1	GLN	A	193	-14.066	90.687	10.359	1.00	68.27	A	O
ATOM	1223	NE2	GLN	A	193	-12.748	90.191	8.595	1.00	72.11	A	N
ATOM	1224	C	GLN	A	193	-10.910	88.584	14.013	1.00	61.09	A	C
ATOM	1225	O	GLN	A	193	-11.166	88.980	15.145	1.00	61.23	A	O
ATOM	1226	N	PHE	A	194	-10.867	87.303	13.685	1.00	58.88	A	N
ATOM	1227	CA	PHE	A	194	-11.130	86.260	14.654	1.00	56.78	A	C
ATOM	1228	CB	PHE	A	194	-11.122	84.906	13.966	1.00	55.24	A	C
ATOM	1229	CG	PHE	A	194	-11.712	83.811	14.784	1.00	53.90	A	C
ATOM	1230	CD1	PHE	A	194	-11.062	82.591	14.896	1.00	54.07	A	C
ATOM	1231	CD2	PHE	A	194	-12.951	83.970	15.389	1.00	54.82	A	C
ATOM	1232	CE1	PHE	A	194	-11.637	81.538	15.591	1.00	53.76	A	C
ATOM	1233	CE2	PHE	A	194	-13.541	82.924	16.091	1.00	55.32	A	C
ATOM	1234	CZ	PHE	A	194	-12.881	81.702	16.190	1.00	55.56	A	C
ATOM	1235	C	PHE	A	194	-10.079	86.269	15.743	1.00	57.13	A	C
ATOM	1236	O	PHE	A	194	-10.404	86.276	16.930	1.00	58.32	A	O
ATOM	1237	N	LEU	A	195	-8.815	86.265	15.332	1.00	55.88	A	N
ATOM	1238	CA	LEU	A	195	-7.700	86.257	16.270	1.00	54.01	A	C
ATOM	1239	CB	LEU	A	195	-6.394	86.339	15.514	1.00	54.24	A	C
ATOM	1240	CG	LEU	A	195	-6.114	85.090	14.714	1.00	54.86	A	C
ATOM	1241	CD1	LEU	A	195	-5.053	85.404	13.703	1.00	57.10	A	C
ATOM	1242	CD2	LEU	A	195	-5.681	83.959	15.634	1.00	55.28	A	C
ATOM	1243	C	LEU	A	195	-7.736	87.371	17.295	1.00	52.83	A	C
ATOM	1244	O	LEU	A	195	-7.242	87.209	18.406	1.00	52.98	A	O
ATOM	1245	N	ASN	A	196	-8.306	88.508	16.927	1.00	51.86	A	N
ATOM	1246	CA	ASN	A	196	-8.370	89.632	17.849	1.00	51.70	A	C
ATOM	1247	CB	ASN	A	196	-8.599	90.934	17.088	1.00	52.23	A	C
ATOM	1248	CG	ASN	A	196	-7.425	91.310	16.218	1.00	52.06	A	C
ATOM	1249	OD1	ASN	A	196	-7.565	92.109	15.295	1.00	53.69	A	O
ATOM	1250	ND2	ASN	A	196	-6.257	90.743	16.506	1.00	50.27	A	N
ATOM	1251	C	ASN	A	196	-9.464	89.463	18.880	1.00	50.85	A	C
ATOM	1252	O	ASN	A	196	-9.244	89.742	20.058	1.00	52.16	A	O
ATOM	1253	N	LEU	A	197	-10.639	89.022	18.427	1.00	49.68	A	N
ATOM	1254	CA	LEU	A	197	-11.797	88.802	19.300	1.00	47.99	A	C
ATOM	1255	CB	LEU	A	197	-12.970	88.230	18.507	1.00	47.91	A	C
ATOM	1256	CG	LEU	A	197	-14.344	88.850	18.749	1.00	48.91	A	C
ATOM	1257	CD1	LEU	A	197	-15.394	88.116	17.909	1.00	49.94	A	C
ATOM	1258	CD2	LEU	A	197	-14.686	88.794	20.213	1.00	48.21	A	C
ATOM	1259	C	LEU	A	197	-11.385	87.790	20.345	1.00	47.15	A	C
ATOM	1260	O	LEU	A	197	-11.714	87.900	21.521	1.00	45.95	A	O
ATOM	1261	N	MET	A	198	-10.664	86.786	19.890	1.00	46.15	A	N
ATOM	1262	CA	MET	A	198	-10.203	85.767	20.777	1.00	46.70	A	C
ATOM	1263	CB	MET	A	198	-9.382	84.775	19.991	1.00	49.05	A	C
ATOM	1264	CG	MET	A	198	-10.217	84.022	18.990	1.00	52.11	A	C
ATOM	1265	SD	MET	A	198	-11.195	82.782	19.833	1.00	57.49	A	S
ATOM	1266	CE	MET	A	198	-9.921	81.441	19.999	1.00	54.82	A	C
ATOM	1267	C	MET	A	198	-9.373	86.406	21.874	1.00	46.81	A	C
ATOM	1268	O	MET	A	198	-9.679	86.269	23.051	1.00	46.02	A	O
ATOM	1269	N	GLU	A	199	-8.324	87.116	21.475	1.00	48.48	A	N
ATOM	1270	CA	GLU	A	199	-7.420	87.783	22.404	1.00	49.71	A	C
ATOM	1271	CB	GLU	A	199	-6.480	88.717	21.627	1.00	51.45	A	C

Figure 1

ATOM	1272	CG	GLU	A	199	-5.314	89.306	22.426	1.00	54.58	A	C
ATOM	1273	CD	GLU	A	199	-5.487	90.798	22.750	1.00	56.73	A	C
ATOM	1274	OE1	GLU	A	199	-5.615	91.618	21.804	1.00	57.97	A	O
ATOM	1275	OE2	GLU	A	199	-5.490	91.145	23.958	1.00	54.14	A	O
ATOM	1276	C	GLU	A	199	-8.193	88.584	23.433	1.00	49.24	A	C
ATOM	1277	O	GLU	A	199	-8.042	88.399	24.642	1.00	49.47	A	O
ATOM	1278	N	LYS	A	200	-9.034	89.478	22.947	1.00	48.27	A	N
ATOM	1279	CA	LYS	A	200	-9.793	90.318	23.835	1.00	48.22	A	C
ATOM	1280	CB	LYS	A	200	-10.527	91.376	23.004	1.00	48.78	A	C
ATOM	1281	CG	LYS	A	200	-10.405	92.800	23.561	1.00	50.73	A	C
ATOM	1282	CD	LYS	A	200	-8.961	93.247	23.811	1.00	52.94	A	C
ATOM	1283	CE	LYS	A	200	-8.129	93.336	22.534	1.00	54.46	A	C
ATOM	1284	NZ	LYS	A	200	-6.765	93.906	22.840	1.00	56.57	A	N
ATOM	1285	C	LYS	A	200	-10.737	89.498	24.729	1.00	47.84	A	C
ATOM	1286	O	LYS	A	200	-11.163	89.974	25.784	1.00	46.65	A	O
ATOM	1287	N	LEU	A	201	-11.039	88.262	24.314	1.00	48.23	A	N
ATOM	1288	CA	LEU	A	201	-11.898	87.346	25.088	1.00	47.14	A	C
ATOM	1289	CB	LEU	A	201	-12.609	86.344	24.174	1.00	45.38	A	C
ATOM	1290	CG	LEU	A	201	-14.002	86.708	23.648	1.00	44.55	A	C
ATOM	1291	CD1	LEU	A	201	-14.541	85.595	22.753	1.00	43.84	A	C
ATOM	1292	CD2	LEU	A	201	-14.929	86.944	24.808	1.00	42.83	A	C
ATOM	1293	C	LEU	A	201	-11.100	86.570	26.130	1.00	47.37	A	C
ATOM	1294	O	LEU	A	201	-11.529	86.456	27.267	1.00	47.30	A	O
ATOM	1295	N	ASN	A	202	-9.951	86.020	25.747	1.00	49.17	A	N
ATOM	1296	CA	ASN	A	202	-9.165	85.281	26.717	1.00	50.88	A	C
ATOM	1297	CB	ASN	A	202	-8.111	84.390	26.054	1.00	53.37	A	C
ATOM	1298	CG	ASN	A	202	-7.129	83.789	27.086	1.00	57.37	A	C
ATOM	1299	OD1	ASN	A	202	-7.548	83.144	28.065	1.00	58.56	A	O
ATOM	1300	ND2	ASN	A	202	-5.825	84.013	26.878	1.00	58.93	A	N
ATOM	1301	C	ASN	A	202	-8.487	86.193	27.731	1.00	51.77	A	C
ATOM	1302	O	ASN	A	202	-8.016	85.715	28.757	1.00	51.84	A	O
ATOM	1303	N	GLU	A	203	-8.424	87.498	27.459	1.00	53.14	A	N
ATOM	1304	CA	GLU	A	203	-7.813	88.426	28.419	1.00	53.99	A	C
ATOM	1305	CB	GLU	A	203	-7.352	89.725	27.744	1.00	57.58	A	C
ATOM	1306	CG	GLU	A	203	-6.008	89.637	27.015	1.00	63.64	A	C
ATOM	1307	CD	GLU	A	203	-5.302	91.000	26.901	1.00	65.85	A	C
ATOM	1308	OE1	GLU	A	203	-5.949	91.987	26.469	1.00	67.69	A	O
ATOM	1309	OE2	GLU	A	203	-4.096	91.072	27.246	1.00	67.28	A	O
ATOM	1310	C	GLU	A	203	-8.817	88.768	29.520	1.00	52.30	A	C
ATOM	1311	O	GLU	A	203	-8.499	88.704	30.709	1.00	50.38	A	O
ATOM	1312	N	ASN	A	204	-10.033	89.117	29.106	1.00	51.66	A	N
ATOM	1313	CA	ASN	A	204	-11.094	89.460	30.033	1.00	52.29	A	C
ATOM	1314	CB	ASN	A	204	-12.379	89.797	29.277	1.00	52.54	A	C
ATOM	1315	CG	ASN	A	204	-12.529	91.288	28.996	1.00	53.58	A	C
ATOM	1316	OD1	ASN	A	204	-13.156	91.683	28.014	1.00	54.12	A	O
ATOM	1317	ND2	ASN	A	204	-11.969	92.117	29.862	1.00	53.94	A	N
ATOM	1318	C	ASN	A	204	-11.365	88.325	31.014	1.00	53.02	A	C
ATOM	1319	O	ASN	A	204	-11.687	88.575	32.180	1.00	53.52	A	O
ATOM	1320	N	ILE	A	205	-11.237	87.083	30.550	1.00	52.58	A	N
ATOM	1321	CA	ILE	A	205	-11.481	85.942	31.421	1.00	52.48	A	C
ATOM	1322	CB	ILE	A	205	-11.768	84.641	30.652	1.00	52.82	A	C
ATOM	1323	CG2	ILE	A	205	-12.877	84.860	29.641	1.00	52.62	A	C
ATOM	1324	CG1	ILE	A	205	-10.499	84.161	29.965	1.00	54.84	A	C
ATOM	1325	CD1	ILE	A	205	-10.396	82.668	29.914	1.00	56.22	A	C
ATOM	1326	C	ILE	A	205	-10.292	85.673	32.317	1.00	52.07	A	C
ATOM	1327	O	ILE	A	205	-10.350	84.799	33.176	1.00	51.76	A	O
ATOM	1328	N	GLU	A	206	-9.207	86.400	32.096	1.00	15.00	A	N
ATOM	1329	CA	GLU	A	206	-8.038	86.235	32.951	1.00	15.00	A	C
ATOM	1330	CB	GLU	A	206	-6.763	86.202	32.106	1.00	15.00	A	C
ATOM	1331	CG	GLU	A	206	-5.503	85.889	32.895	1.00	15.00	A	C
ATOM	1332	CD	GLU	A	206	-4.275	85.770	32.012	1.00	15.00	A	C
ATOM	1333	OE1	GLU	A	206	-3.205	85.384	32.529	1.00	15.00	A	O
ATOM	1334	OE2	GLU	A	206	-4.382	86.061	30.803	1.00	15.00	A	O
ATOM	1335	C	GLU	A	206	-7.948	87.359	33.978	1.00	15.00	A	C
ATOM	1336	O	GLU	A	206	-7.663	87.117	35.125	1.00	52.36	A	O
ATOM	1337	N	ILE	A	207	-8.250	88.575	33.547	1.00	52.43	A	N
ATOM	1338	CA	ILE	A	207	-8.231	89.647	34.526	1.00	52.34	A	C
ATOM	1339	CB	ILE	A	207	-8.312	91.029	33.884	1.00	51.96	A	C
ATOM	1340	CG2	ILE	A	207	-7.195	91.204	32.896	1.00	51.22	A	C
ATOM	1341	CG1	ILE	A	207	-9.649	91.218	33.187	1.00	52.16	A	C
ATOM	1342	CD1	ILE	A	207	-9.683	92.492	32.419	1.00	54.91	A	C
ATOM	1343	C	ILE	A	207	-9.487	89.456	35.348	1.00	52.23	A	C
ATOM	1344	O	ILE	A	207	-9.647	90.061	36.399	1.00	53.42	A	O
ATOM	1345	N	LEU	A	208	-10.380	88.602	34.855	1.00	51.14	A	N
ATOM	1346	CA	LEU	A	208	-11.640	88.350	35.530	1.00	48.95	A	C

Figure 1

ATOM	1347	CB	LEU	A	208	-12.726	88.048	34.507	1.00	48.64	A	C
ATOM	1348	CG	LEU	A	208	-14.092	88.693	34.717	1.00	49.84	A	C
ATOM	1349	CD1	LEU	A	208	-13.966	90.202	34.847	1.00	50.40	A	C
ATOM	1350	CD2	LEU	A	208	-14.980	88.335	33.527	1.00	51.62	A	C
ATOM	1351	C	LEU	A	208	-11.471	87.176	36.459	1.00	47.52	A	C
ATOM	1352	O	LEU	A	208	-12.236	86.988	37.400	1.00	48.03	A	O
ATOM	1353	N	SER	A	209	-10.454	86.374	36.213	1.00	46.74	A	N
ATOM	1354	CA	SER	A	209	-10.233	85.192	37.047	1.00	45.53	A	C
ATOM	1355	CB	SER	A	209	-9.805	84.025	36.169	1.00	42.89	A	C
ATOM	1356	OG	SER	A	209	-8.439	84.179	35.857	1.00	37.96	A	O
ATOM	1357	C	SER	A	209	-9.111	85.483	38.013	1.00	45.79	A	C
ATOM	1358	O	SER	A	209	-8.729	86.646	38.212	1.00	48.55	A	O
ATOM	1359	N	SER	A	210	-8.575	84.442	38.630	1.00	44.94	A	N
ATOM	1360	CA	SER	A	210	-7.446	84.699	39.480	1.00	45.52	A	C
ATOM	1361	CB	SER	A	210	-6.447	85.497	38.654	1.00	48.08	A	C
ATOM	1362	OG	SER	A	210	-6.427	84.965	37.334	1.00	51.50	A	O
ATOM	1363	C	SER	A	210	-7.756	85.425	40.789	1.00	43.84	A	C
ATOM	1364	O	SER	A	210	-8.259	86.565	40.801	1.00	40.94	A	O
ATOM	1365	N	PRO	A	211	-7.408	84.762	41.909	1.00	44.30	A	N
ATOM	1366	CD	PRO	A	211	-6.524	83.593	41.760	1.00	44.10	A	C
ATOM	1367	CA	PRO	A	211	-7.527	85.090	43.324	1.00	43.60	A	C
ATOM	1368	CB	PRO	A	211	-6.137	84.804	43.834	1.00	44.52	A	C
ATOM	1369	CG	PRO	A	211	-5.818	83.528	43.106	1.00	44.91	A	C
ATOM	1370	C	PRO	A	211	-8.016	86.469	43.682	1.00	42.83	A	C
ATOM	1371	O	PRO	A	211	-9.180	86.646	43.998	1.00	44.21	A	O
ATOM	1372	N	TRP	A	212	-7.155	87.435	43.661	1.00	15.00	A	
ATOM	1373	CA	TRP	A	212	-7.665	88.757	44.004	1.00	15.00	A	
ATOM	1374	CB	TRP	A	212	-6.537	89.790	43.950	1.00	15.00	A	
ATOM	1375	CG	TRP	A	212	-6.970	91.171	44.337	1.00	15.00	A	
ATOM	1376	CD2	TRP	A	212	-7.327	92.239	43.450	1.00	15.00	A	
ATOM	1377	CE2	TRP	A	212	-7.667	93.348	44.250	1.00	15.00	A	
ATOM	1378	CE3	TRP	A	212	-7.453	92.346	42.062	1.00	15.00	A	
ATOM	1379	CD1	TRP	A	212	-7.104	91.663	45.603	1.00	15.00	A	
ATOM	1380	NE1	TRP	A	212	-7.521	92.971	45.559	1.00	15.00	A	
ATOM	1381	CZ2	TRP	A	212	-8.123	94.549	43.709	1.00	15.00	A	
ATOM	1382	CZ3	TRP	A	212	-7.907	93.537	41.526	1.00	15.00	A	
ATOM	1383	CH2	TRP	A	212	-8.235	94.624	42.348	1.00	15.00	A	
ATOM	1384	C	TRP	A	212	-8.791	89.170	43.063	1.00	15.00	A	
ATOM	1385	O	TRP	A	212	-8.707	88.946	41.840	1.00	43.70	A	
ATOM	1386	N	ILE	A	213	-9.854	89.631	43.580	1.00	15.00	A	
ATOM	1387	CA	ILE	A	213	-11.108	90.068	42.978	1.00	15.00	A	
ATOM	1388	CB	ILE	A	213	-11.481	89.194	41.764	1.00	15.00	A	
ATOM	1389	CG2	ILE	A	213	-12.838	89.607	41.217	1.00	15.00	A	
ATOM	1390	CG1	ILE	A	213	-10.409	89.316	40.680	1.00	15.00	A	
ATOM	1391	CD1	ILE	A	213	-10.460	88.215	39.642	1.00	15.00	A	
ATOM	1392	C	ILE	A	213	-12.248	90.015	43.989	1.00	15.00	A	
ATOM	1393	O	ILE	A	213	-13.157	90.767	44.053	1.00	45.29	A	
ATOM	1394	N	GLN	A	214	-11.972	89.039	44.894	1.00	45.17	A	N
ATOM	1395	CA	GLN	A	214	-12.836	88.877	46.026	1.00	45.70	A	C
ATOM	1396	CB	GLN	A	214	-12.998	87.395	46.363	1.00	46.13	A	C
ATOM	1397	CG	GLN	A	214	-14.103	86.770	45.574	1.00	46.79	A	C
ATOM	1398	CD	GLN	A	214	-15.434	87.493	45.835	1.00	48.41	A	C
ATOM	1399	OE1	GLN	A	214	-16.038	88.091	44.914	1.00	48.25	A	O
ATOM	1400	NE2	GLN	A	214	-15.889	87.456	47.100	1.00	47.05	A	N
ATOM	1401	C	GLN	A	214	-12.030	89.622	47.081	1.00	45.95	A	C
ATOM	1402	O	GLN	A	214	-11.513	89.058	48.051	1.00	47.62	A	O
ATOM	1403	N	VAL	A	215	-11.858	90.776	46.846	1.00	15.00	A	
ATOM	1404	CA	VAL	A	215	-11.174	91.800	47.628	1.00	15.00	A	
ATOM	1405	CB	VAL	A	215	-9.643	91.633	47.551	1.00	15.00	A	
ATOM	1406	CG1	VAL	A	215	-8.954	92.807	48.228	1.00	15.00	A	
ATOM	1407	CG2	VAL	A	215	-9.225	90.321	48.194	1.00	15.00	A	
ATOM	1408	C	VAL	A	215	-11.541	93.197	47.140	1.00	15.00	A	
ATOM	1409	O	VAL	A	215	-11.242	94.180	47.510	1.00	43.08	A	
ATOM	1410	N	TYR	A	216	-12.337	92.899	46.065	1.00	15.00	A	
ATOM	1411	CA	TYR	A	216	-13.002	93.993	45.368	1.00	15.00	A	
ATOM	1412	CB	TYR	A	216	-12.590	94.008	43.894	1.00	15.00	A	
ATOM	1413	CG	TYR	A	216	-13.197	95.143	43.100	1.00	15.00	A	
ATOM	1414	CD1	TYR	A	216	-12.740	96.445	43.253	1.00	15.00	A	
ATOM	1415	CE1	TYR	A	216	-13.292	97.486	42.529	1.00	15.00	A	
ATOM	1416	CD2	TYR	A	216	-14.228	94.912	42.198	1.00	15.00	A	
ATOM	1417	CE2	TYR	A	216	-14.785	95.947	41.471	1.00	15.00	A	
ATOM	1418	CZ	TYR	A	216	-14.314	97.231	41.640	1.00	15.00	A	
ATOM	1419	OH	TYR	A	216	-14.865	98.264	40.918	1.00	15.00	A	
ATOM	1420	C	TYR	A	216	-14.517	93.872	45.479	1.00	15.00	A	
ATOM	1421	O	TYR	A	216	-15.221	94.807	45.674	1.00	40.31	A	

20/514

Figure 1

ATOM	1422	N	ASN	A	217	-14.903	92.556	45.415	1.00	15.00	A
ATOM	1423	CA	ASN	A	217	-16.312	92.310	45.696	1.00	15.00	A
ATOM	1424	CB	ASN	A	217	-16.636	90.824	45.522	1.00	15.00	A
ATOM	1425	CG	ASN	A	217	-16.640	90.394	44.069	1.00	15.00	A
ATOM	1426	OD1	ASN	A	217	-17.184	91.085	43.207	1.00	15.00	A
ATOM	1427	ND2	ASN	A	217	-16.035	89.246	43.789	1.00	15.00	A
ATOM	1428	C	ASN	A	217	-16.673	92.756	47.108	1.00	15.00	A
ATOM	1429	O	ASN	A	217	-17.214	93.787	47.292	1.00	36.52	A
ATOM	1430	N	ASN	A	218	-16.162	91.940	48.022	1.00	15.00	A
ATOM	1431	CA	ASN	A	218	-16.216	92.506	49.364	1.00	15.00	A
ATOM	1432	CB	ASN	A	218	-15.728	91.482	50.391	1.00	15.00	A
ATOM	1433	CG	ASN	A	218	-16.717	90.354	50.606	1.00	15.00	A
ATOM	1434	OD1	ASN	A	218	-17.921	90.583	50.724	1.00	15.00	A
ATOM	1435	ND2	ASN	A	218	-16.214	89.128	50.661	1.00	15.00	A
ATOM	1436	C	ASN	A	218	-15.375	93.774	49.457	1.00	15.00	A
ATOM	1437	O	ASN	A	218	-14.719	94.008	48.342	1.00	38.46	A
ATOM	1438	N	PHE	A	219	-15.346	94.522	50.415	1.00	15.00	A
ATOM	1439	CA	PHE	A	219	-14.466	95.671	50.586	1.00	15.00	A
ATOM	1440	CB	PHE	A	219	-13.160	95.242	51.258	1.00	15.00	A
ATOM	1441	CG	PHE	A	219	-12.319	94.324	50.417	1.00	15.00	A
ATOM	1442	CD1	PHE	A	219	-11.384	94.835	49.532	1.00	15.00	A
ATOM	1443	CD2	PHE	A	219	-12.463	92.950	50.512	1.00	15.00	A
ATOM	1444	CE1	PHE	A	219	-10.610	93.993	48.756	1.00	15.00	A
ATOM	1445	CE2	PHE	A	219	-11.691	92.103	49.739	1.00	15.00	A
ATOM	1446	CZ	PHE	A	219	-10.763	92.625	48.862	1.00	15.00	A
ATOM	1447	C	PHE	A	219	-14.164	96.334	49.246	1.00	15.00	A
ATOM	1448	O	PHE	A	219	-12.944	96.588	48.919	1.00	39.04	A
ATOM	1449	N	PRO	A	220	-15.142	96.820	48.420	1.00	39.53	A
ATOM	1450	CD	PRO	A	220	-16.579	96.853	48.727	1.00	39.41	A
ATOM	1451	CA	PRO	A	220	-14.903	97.520	47.146	1.00	40.20	A
ATOM	1452	CB	PRO	A	220	-16.302	97.678	46.572	1.00	39.40	A
ATOM	1453	CG	PRO	A	220	-17.077	97.957	47.777	1.00	39.30	A
ATOM	1454	C	PRO	A	220	-14.240	98.880	47.315	1.00	42.68	A
ATOM	1455	O	PRO	A	220	-14.489	99.807	46.545	1.00	44.59	A
ATOM	1456	N	ALA	A	221	-13.419	99.020	48.340	1.00	44.49	A
ATOM	1457	CA	ALA	A	221	-12.740	100.283	48.558	1.00	43.86	A
ATOM	1458	CB	ALA	A	221	-11.873	100.195	49.808	1.00	45.60	A
ATOM	1459	C	ALA	A	221	-11.880	100.564	47.338	1.00	43.51	A
ATOM	1460	O	ALA	A	221	-11.842	101.694	46.867	1.00	43.21	A
ATOM	1461	N	LEU	A	222	-11.204	99.546	46.802	1.00	15.00	A
ATOM	1462	CA	LEU	A	222	-10.333	99.736	45.648	1.00	15.00	A
ATOM	1463	CB	LEU	A	222	-9.709	98.402	45.230	1.00	15.00	A
ATOM	1464	CG	LEU	A	222	-8.810	97.720	46.265	1.00	15.00	A
ATOM	1465	CD1	LEU	A	222	-8.472	96.309	45.808	1.00	15.00	A
ATOM	1466	CD2	LEU	A	222	-7.545	98.536	46.470	1.00	15.00	A
ATOM	1467	C	LEU	A	222	-11.101	100.337	44.476	1.00	15.00	A
ATOM	1468	O	LEU	A	222	-11.774	99.645	43.688	1.00	47.42	A
ATOM	1469	N	LEU	A	223	-11.072	101.521	44.405	1.00	15.00	A
ATOM	1470	CA	LEU	A	223	-11.276	102.462	43.309	1.00	15.00	A
ATOM	1471	CB	LEU	A	223	-12.382	103.458	43.665	1.00	15.00	A
ATOM	1472	CG	LEU	A	223	-13.774	102.867	43.909	1.00	15.00	A
ATOM	1473	CD1	LEU	A	223	-14.694	103.930	44.487	1.00	15.00	A
ATOM	1474	CD2	LEU	A	223	-14.337	102.317	42.609	1.00	15.00	A
ATOM	1475	C	LEU	A	223	-9.988	103.214	42.988	1.00	15.00	A
ATOM	1476	O	LEU	A	223	-9.817	104.163	42.397	1.00	54.92	A
ATOM	1477	N	ASP	A	224	-9.026	102.661	43.976	1.00	15.00	A
ATOM	1478	CA	ASP	A	224	-7.600	102.575	43.682	1.00	15.00	A
ATOM	1479	CB	ASP	A	224	-6.830	102.120	44.925	1.00	15.00	A
ATOM	1480	CG	ASP	A	224	-6.797	103.181	46.008	1.00	15.00	A
ATOM	1481	OD1	ASP	A	224	-6.791	104.382	45.666	1.00	15.00	A
ATOM	1482	OD2	ASP	A	224	-6.776	102.812	47.201	1.00	15.00	A
ATOM	1483	C	ASP	A	224	-7.337	101.610	42.531	1.00	15.00	A
ATOM	1484	O	ASP	A	224	-7.913	100.451	42.703	1.00	15.00	A
ATOM	1485	N	TYR	A	225	-7.437	102.041	41.286	1.00	15.00	A
ATOM	1486	CA	TYR	A	225	-8.067	101.479	40.098	1.00	15.00	A
ATOM	1487	CB	TYR	A	225	-8.035	102.493	38.951	1.00	15.00	A
ATOM	1488	CG	TYR	A	225	-8.835	103.748	39.220	1.00	15.00	A
ATOM	1489	CD1	TYR	A	225	-8.206	104.928	39.595	1.00	15.00	A
ATOM	1490	CE1	TYR	A	225	-8.933	106.077	39.840	1.00	15.00	A
ATOM	1491	CD2	TYR	A	225	-10.218	103.751	39.100	1.00	15.00	A
ATOM	1492	CE2	TYR	A	225	-10.953	104.897	39.344	1.00	15.00	A
ATOM	1493	CZ	TYR	A	225	-10.306	106.056	39.714	1.00	15.00	A
ATOM	1494	OH	TYR	A	225	-11.034	107.197	39.958	1.00	15.00	A
ATOM	1495	C	TYR	A	225	-7.374	100.191	39.667	1.00	15.00	A
ATOM	1496	O	TYR	A	225	-8.063	99.364	38.967	1.00	73.66	A

Figure 1

ATOM	1497	N	PHE	A	226	-6.190	100.087	40.180	1.00	80.51	A	N
ATOM	1498	CA	PHE	A	226	-5.512	98.857	40.298	1.00	82.70	A	C
ATOM	1499	CB	PHE	A	226	-6.278	97.716	40.941	1.00	84.50	A	C
ATOM	1500	CG	PHE	A	226	-5.470	96.742	41.735	1.00	84.75	A	C
ATOM	1501	CD1	PHE	A	226	-4.842	95.675	41.126	1.00	85.57	A	C
ATOM	1502	CD2	PHE	A	226	-5.325	96.936	43.105	1.00	85.01	A	C
ATOM	1503	CE1	PHE	A	226	-4.069	94.803	41.872	1.00	84.36	A	C
ATOM	1504	CE2	PHE	A	226	-4.552	96.073	43.845	1.00	83.59	A	C
ATOM	1505	CZ	PHE	A	226	-3.932	95.008	43.226	1.00	83.07	A	C
ATOM	1506	C	PHE	A	226	-4.696	98.402	39.125	1.00	84.91	A	C
ATOM	1507	O	PHE	A	226	-3.594	97.882	39.237	1.00	84.55	A	O
ATOM	1508	N	PRO	A	227	-5.128	98.572	37.874	1.00	82.22	A	N
ATOM	1509	CD	PRO	A	227	-4.001	98.796	36.954	1.00	81.81	A	C
ATOM	1510	CA	PRO	A	227	-6.337	99.212	37.325	1.00	80.08	A	C
ATOM	1511	CB	PRO	A	227	-5.772	100.206	36.298	1.00	80.60	A	C
ATOM	1512	CG	PRO	A	227	-4.234	100.221	36.571	1.00	81.08	A	C
ATOM	1513	C	PRO	A	227	-7.273	98.171	36.696	1.00	80.26	A	C
ATOM	1514	O	PRO	A	227	-7.251	97.930	35.485	1.00	78.06	A	O
ATOM	1515	N	GLY	A	228	-8.092	97.552	37.546	1.00	80.12	A	N
ATOM	1516	CA	GLY	A	228	-9.023	96.513	37.109	1.00	79.49	A	C
ATOM	1517	C	GLY	A	228	-10.177	96.916	36.205	1.00	79.54	A	C
ATOM	1518	O	GLY	A	228	-10.102	96.713	35.000	1.00	79.62	A	O
ATOM	1519	N	THR	A	229	-10.474	97.909	36.793	1.00	15.00	A	
ATOM	1520	CA	THR	A	229	-11.638	98.338	36.028	1.00	15.00	A	
ATOM	1521	CB	THR	A	229	-12.719	98.941	36.945	1.00	15.00	A	
ATOM	1522	OG1	THR	A	229	-13.156	97.952	37.886	1.00	15.00	A	
ATOM	1523	CG2	THR	A	229	-13.909	99.414	36.124	1.00	15.00	A	
ATOM	1524	C	THR	A	229	-11.251	99.376	34.979	1.00	15.00	A	
ATOM	1525	O	THR	A	229	-11.371	99.169	33.779	1.00	80.84	A	
ATOM	1526	N	HIS	A	230	-11.628	100.083	35.492	1.00	81.54	A	N
ATOM	1527	CA	HIS	A	230	-11.255	101.234	34.689	1.00	80.85	A	C
ATOM	1528	CB	HIS	A	230	-10.811	102.394	35.588	1.00	82.82	A	C
ATOM	1529	CG	HIS	A	230	-10.896	103.728	34.911	1.00	85.21	A	C
ATOM	1530	CD2	HIS	A	230	-9.939	104.625	34.573	1.00	86.94	A	C
ATOM	1531	ND1	HIS	A	230	-12.085	104.251	34.451	1.00	86.71	A	N
ATOM	1532	CE1	HIS	A	230	-11.862	105.412	33.860	1.00	87.15	A	C
ATOM	1533	NE2	HIS	A	230	-10.568	105.663	33.921	1.00	87.71	A	N
ATOM	1534	C	HIS	A	230	-10.172	100.988	33.659	1.00	79.02	A	C
ATOM	1535	O	HIS	A	230	-9.486	101.929	33.275	1.00	78.82	A	O
ATOM	1536	N	ASN	A	231	-9.977	99.740	33.212	1.00	15.00	A	
ATOM	1537	CA	ASN	A	231	-8.920	99.619	32.217	1.00	15.00	A	
ATOM	1538	CB	ASN	A	231	-7.569	99.396	32.901	1.00	15.00	A	
ATOM	1539	CG	ASN	A	231	-7.054	100.641	33.595	1.00	15.00	A	
ATOM	1540	OD1	ASN	A	231	-7.112	101.741	33.044	1.00	15.00	A	
ATOM	1541	ND2	ASN	A	231	-6.543	100.475	34.808	1.00	15.00	A	
ATOM	1542	C	ASN	A	231	-9.206	98.474	31.252	1.00	15.00	A	
ATOM	1543	O	ASN	A	231	-10.150	98.568	30.469	1.00	71.12	A	
ATOM	1544	N	LYS	A	232	-8.159	97.737	31.727	1.00	15.00	A	
ATOM	1545	CA	LYS	A	232	-8.249	96.647	30.764	1.00	15.00	A	
ATOM	1546	CB	LYS	A	232	-7.313	95.504	31.168	1.00	15.00	A	
ATOM	1547	CG	LYS	A	232	-5.836	95.827	31.013	1.00	15.00	A	
ATOM	1548	CD	LYS	A	232	-4.968	94.643	31.407	1.00	15.00	A	
ATOM	1549	CE	LYS	A	232	-3.491	94.967	31.253	1.00	15.00	A	
ATOM	1550	NZ	LYS	A	232	-2.627	93.815	31.636	1.00	15.00	A	
ATOM	1551	C	LYS	A	232	-9.679	96.128	30.656	1.00	15.00	A	
ATOM	1552	O	LYS	A	232	-10.154	95.822	29.532	1.00	64.62	A	
ATOM	1553	N	LEU	A	233	-10.646	95.756	31.303	1.00	60.06	A	N
ATOM	1554	CA	LEU	A	233	-12.028	95.289	31.322	1.00	55.48	A	C
ATOM	1555	CB	LEU	A	233	-12.551	95.263	32.757	1.00	54.82	A	C
ATOM	1556	CG	LEU	A	233	-12.576	93.877	33.406	1.00	52.33	A	C
ATOM	1557	CD1	LEU	A	233	-13.222	93.929	34.774	1.00	51.29	A	C
ATOM	1558	CD2	LEU	A	233	-13.340	92.952	32.504	1.00	51.85	A	C
ATOM	1559	C	LEU	A	233	-12.922	96.192	30.483	1.00	53.90	A	C
ATOM	1560	O	LEU	A	233	-13.439	95.789	29.443	1.00	53.05	A	O
ATOM	1561	N	LEU	A	234	-13.086	97.426	30.946	1.00	53.45	A	N
ATOM	1562	CA	LEU	A	234	-13.918	98.406	30.272	1.00	51.59	A	C
ATOM	1563	CB	LEU	A	234	-13.904	99.738	31.034	1.00	50.95	A	C
ATOM	1564	CG	LEU	A	234	-15.242	100.289	31.526	1.00	50.06	A	C
ATOM	1565	CD1	LEU	A	234	-16.370	99.676	30.711	1.00	51.42	A	C
ATOM	1566	CD2	LEU	A	234	-15.420	99.992	32.995	1.00	49.03	A	C
ATOM	1567	C	LEU	A	234	-13.514	98.654	28.832	1.00	51.24	A	C
ATOM	1568	O	LEU	A	234	-14.375	98.817	27.972	1.00	51.48	A	O
ATOM	1569	N	LYS	A	235	-12.211	98.686	28.563	1.00	51.05	A	N
ATOM	1570	CA	LYS	A	235	-11.831	98.954	27.182	1.00	51.65	A	C
ATOM	1571	CB	LYS	A	235	-10.376	99.426	27.114	1.00	54.50	A	C

22/514

Figure 1

ATOM	1572	CG	LYS	A	235	-9.512	98.636	26.145	1.00	59.35	A	C
ATOM	1573	CD	LYS	A	235	-8.084	99.158	26.129	1.00	63.07	A	C
ATOM	1574	CE	LYS	A	235	-7.220	98.368	25.159	1.00	65.70	A	C
ATOM	1575	NZ	LYS	A	235	-5.817	98.868	25.132	1.00	65.87	A	N
ATOM	1576	C	LYS	A	235	-12.012	97.714	26.314	1.00	50.30	A	C
ATOM	1577	O	LYS	A	235	-12.558	97.827	25.230	1.00	50.44	A	O
ATOM	1578	N	ASN	A	236	-11.628	96.543	26.797	1.00	49.30	A	N
ATOM	1579	CA	ASN	A	236	-11.831	95.347	25.994	1.00	48.34	A	C
ATOM	1580	CB	ASN	A	236	-11.308	94.109	26.710	1.00	49.19	A	C
ATOM	1581	CG	ASN	A	236	-9.807	94.121	26.850	1.00	50.75	A	C
ATOM	1582	OD1	ASN	A	236	-9.201	93.155	27.301	1.00	51.34	A	O
ATOM	1583	ND2	ASN	A	236	-9.195	95.228	26.465	1.00	52.82	A	N
ATOM	1584	C	ASN	A	236	-13.310	95.187	25.692	1.00	47.92	A	C
ATOM	1585	O	ASN	A	236	-13.682	94.872	24.567	1.00	47.43	A	O
ATOM	1586	N	VAL	A	237	-14.139	95.399	26.694	1.00	15.00	A	
ATOM	1587	CA	VAL	A	237	-15.569	95.281	26.439	1.00	15.00	A	
ATOM	1588	CB	VAL	A	237	-16.384	95.440	27.739	1.00	15.00	A	
ATOM	1589	CG1	VAL	A	237	-17.870	95.486	27.422	1.00	15.00	A	
ATOM	1590	CG2	VAL	A	237	-16.074	94.300	28.695	1.00	15.00	A	
ATOM	1591	C	VAL	A	237	-16.034	96.332	25.437	1.00	15.00	A	
ATOM	1592	O	VAL	A	237	-17.161	96.391	25.021	1.00	47.86	A	
ATOM	1593	CB	ALA	A	238	-14.500	99.389	23.973	1.00	15.00	A	
ATOM	1594	C	ALA	A	238	-14.722	97.622	22.219	1.00	15.00	A	
ATOM	1595	O	ALA	A	238	-15.440	97.638	21.257	1.00	51.74	A	
ATOM	1596	N	ALA	A	238	-14.966	97.052	24.624	1.00	15.00	A	
ATOM	1597	CA	ALA	A	238	-15.203	98.095	23.586	1.00	15.00	A	
ATOM	1598	N	PHE	A	239	-13.572	97.261	22.656	1.00	50.57	A	N
ATOM	1599	CA	PHE	A	239	-13.007	96.764	21.417	1.00	50.13	A	C
ATOM	1600	CB	PHE	A	239	-11.673	96.087	21.654	1.00	49.83	A	C
ATOM	1601	CG	PHE	A	239	-11.081	95.496	20.417	1.00	51.21	A	C
ATOM	1602	CD1	PHE	A	239	-10.427	94.280	20.468	1.00	53.04	A	C
ATOM	1603	CD2	PHE	A	239	-11.161	96.160	19.199	1.00	51.74	A	C
ATOM	1604	CE1	PHE	A	239	-9.858	93.727	19.326	1.00	53.55	A	C
ATOM	1605	CE2	PHE	A	239	-10.596	95.620	18.051	1.00	52.66	A	C
ATOM	1606	CZ	PHE	A	239	-9.942	94.399	18.115	1.00	53.31	A	C
ATOM	1607	C	PHE	A	239	-13.949	95.760	20.793	1.00	50.44	A	C
ATOM	1608	O	PHE	A	239	-13.995	95.617	19.580	1.00	52.03	A	O
ATOM	1609	N	MET	A	240	-14.695	95.050	21.628	1.00	51.45	A	N
ATOM	1610	CA	MET	A	240	-15.640	94.070	21.126	1.00	50.48	A	C
ATOM	1611	CB	MET	A	240	-15.958	93.040	22.206	1.00	50.14	A	C
ATOM	1612	CG	MET	A	240	-14.727	92.269	22.666	1.00	49.09	A	C
ATOM	1613	SD	MET	A	240	-14.996	91.304	24.139	1.00	48.50	A	S
ATOM	1614	CE	MET	A	240	-15.826	89.948	23.430	1.00	49.65	A	C
ATOM	1615	C	MET	A	240	-16.899	94.788	20.663	1.00	50.30	A	C
ATOM	1616	O	MET	A	240	-17.326	94.589	19.537	1.00	51.04	A	O
ATOM	1617	N	LYS	A	241	-17.488	95.636	21.503	1.00	50.16	A	N
ATOM	1618	CA	LYS	A	241	-18.695	96.352	21.087	1.00	50.55	A	C
ATOM	1619	CB	LYS	A	241	-19.152	97.339	22.155	1.00	48.54	A	C
ATOM	1620	CG	LYS	A	241	-19.685	96.717	23.415	1.00	49.64	A	C
ATOM	1621	CD	LYS	A	241	-20.019	97.791	24.438	1.00	51.04	A	C
ATOM	1622	CE	LYS	A	241	-20.608	97.232	25.736	1.00	52.81	A	C
ATOM	1623	NZ	LYS	A	241	-21.968	96.647	25.596	1.00	54.80	A	N
ATOM	1624	C	LYS	A	241	-18.462	97.130	19.795	1.00	51.60	A	C
ATOM	1625	O	LYS	A	241	-19.353	97.233	18.951	1.00	51.32	A	O
ATOM	1626	N	SER	A	242	-17.267	97.686	19.634	1.00	52.89	A	N
ATOM	1627	CA	SER	A	242	-16.995	98.467	18.441	1.00	54.93	A	C
ATOM	1628	CB	SER	A	242	-15.696	99.252	18.595	1.00	56.26	A	C
ATOM	1629	OG	SER	A	242	-15.901	100.602	18.213	1.00	57.50	A	O
ATOM	1630	C	SER	A	242	-16.936	97.587	17.207	1.00	55.84	A	C
ATOM	1631	O	SER	A	242	-17.586	97.883	16.206	1.00	57.65	A	O
ATOM	1632	N	TYR	A	243	-16.161	96.507	17.288	1.00	55.46	A	N
ATOM	1633	CA	TYR	A	243	-16.022	95.550	16.191	1.00	54.27	A	C
ATOM	1634	CB	TYR	A	243	-15.088	94.407	16.597	1.00	54.42	A	C
ATOM	1635	CG	TYR	A	243	-15.020	93.283	15.593	1.00	54.85	A	C
ATOM	1636	CD1	TYR	A	243	-14.541	93.504	14.313	1.00	55.46	A	C
ATOM	1637	CE1	TYR	A	243	-14.514	92.485	13.367	1.00	56.37	A	C
ATOM	1638	CD2	TYR	A	243	-15.469	92.006	15.913	1.00	55.88	A	C
ATOM	1639	CE2	TYR	A	243	-15.446	90.974	14.972	1.00	56.15	A	C
ATOM	1640	CZ	TYR	A	243	-14.970	91.221	13.700	1.00	56.24	A	C
ATOM	1641	OH	TYR	A	243	-14.968	90.213	12.760	1.00	55.65	A	O
ATOM	1642	C	TYR	A	243	-17.381	94.978	15.835	1.00	54.18	A	C
ATOM	1643	O	TYR	A	243	-17.687	94.757	14.669	1.00	54.53	A	O
ATOM	1644	N	ILE	A	244	-18.201	94.742	16.849	1.00	53.69	A	N
ATOM	1645	CA	ILE	A	244	-19.521	94.199	16.614	1.00	53.32	A	C
ATOM	1646	CB	ILE	A	244	-20.167	93.703	17.927	1.00	52.59	A	C

Figure 1

ATOM	1647	CG2	ILE	A	244	-21.595	93.249	17.666	1.00	51.66	A	C
ATOM	1648	CG1	ILE	A	244	-19.374	92.520	18.485	1.00	51.93	A	C
ATOM	1649	CD1	ILE	A	244	-19.936	91.968	19.767	1.00	52.01	A	C
ATOM	1650	C	ILE	A	244	-20.419	95.241	15.962	1.00	54.63	A	C
ATOM	1651	O	ILE	A	244	-21.133	94.933	15.011	1.00	55.12	A	O
ATOM	1652	N	LEU	A	245	-20.385	96.475	16.464	1.00	55.14	A	N
ATOM	1653	CA	LEU	A	245	-21.204	97.547	15.897	1.00	55.40	A	C
ATOM	1654	CB	LEU	A	245	-21.025	98.828	16.708	1.00	55.36	A	C
ATOM	1655	CG	LEU	A	245	-22.029	99.973	16.532	1.00	55.00	A	C
ATOM	1656	CD1	LEU	A	245	-21.754	100.702	15.258	1.00	55.06	A	C
ATOM	1657	CD2	LEU	A	245	-23.456	99.447	16.566	1.00	55.99	A	C
ATOM	1658	C	LEU	A	245	-20.751	97.746	14.452	1.00	55.87	A	C
ATOM	1659	O	LEU	A	245	-21.534	98.119	13.584	1.00	55.71	A	O
ATOM	1660	N	GLU	A	246	-19.480	97.462	14.201	1.00	56.97	A	N
ATOM	1661	CA	GLU	A	246	-18.904	97.559	12.869	1.00	58.41	A	C
ATOM	1662	CB	GLU	A	246	-17.413	97.203	12.936	1.00	61.24	A	C
ATOM	1663	CG	GLU	A	246	-16.549	97.666	11.775	1.00	64.45	A	C
ATOM	1664	CD	GLU	A	246	-15.155	97.056	11.833	1.00	67.57	A	C
ATOM	1665	OE1	GLU	A	246	-14.565	97.018	12.934	1.00	67.23	A	O
ATOM	1666	OE2	GLU	A	246	-14.648	96.610	10.777	1.00	70.46	A	O
ATOM	1667	C	GLU	A	246	-19.643	96.540	11.995	1.00	57.77	A	C
ATOM	1668	O	GLU	A	246	-19.953	96.810	10.842	1.00	57.83	A	O
ATOM	1669	N	LYS	A	247	-19.928	95.367	12.553	1.00	57.51	A	N
ATOM	1670	CA	LYS	A	247	-20.628	94.326	11.806	1.00	57.29	A	C
ATOM	1671	CB	LYS	A	247	-20.480	92.970	12.496	1.00	57.37	A	C
ATOM	1672	CG	LYS	A	247	-19.545	92.016	11.792	1.00	57.43	A	C
ATOM	1673	CD	LYS	A	247	-18.122	92.487	11.885	1.00	58.58	A	C
ATOM	1674	CE	LYS	A	247	-17.216	91.772	10.892	1.00	59.89	A	C
ATOM	1675	NZ	LYS	A	247	-17.083	90.318	11.161	1.00	60.46	A	N
ATOM	1676	C	LYS	A	247	-22.106	94.636	11.666	1.00	57.41	A	C
ATOM	1677	O	LYS	A	247	-22.726	94.328	10.651	1.00	58.07	A	O
ATOM	1678	N	VAL	A	248	-22.675	95.235	12.704	1.00	56.82	A	N
ATOM	1679	CA	VAL	A	248	-24.091	95.573	12.709	1.00	55.55	A	C
ATOM	1680	CB	VAL	A	248	-24.465	96.323	13.960	1.00	54.39	A	C
ATOM	1681	CG1	VAL	A	248	-25.937	96.671	13.922	1.00	52.73	A	C
ATOM	1682	CG2	VAL	A	248	-24.122	95.486	15.171	1.00	54.55	A	C
ATOM	1683	C	VAL	A	248	-24.435	96.459	11.551	1.00	56.37	A	C
ATOM	1684	O	VAL	A	248	-25.576	96.511	11.095	1.00	56.51	A	O
ATOM	1685	N	LYS	A	249	-23.425	97.184	11.104	1.00	57.80	A	N
ATOM	1686	CA	LYS	A	249	-23.559	98.108	10.001	1.00	58.67	A	C
ATOM	1687	CB	LYS	A	249	-22.259	98.893	9.866	1.00	59.70	A	C
ATOM	1688	CG	LYS	A	249	-22.365	100.400	10.080	1.00	61.09	A	C
ATOM	1689	CD	LYS	A	249	-22.889	100.798	11.454	1.00	61.95	A	C
ATOM	1690	CE	LYS	A	249	-22.525	102.256	11.783	1.00	64.07	A	C
ATOM	1691	NZ	LYS	A	249	-22.967	103.266	10.761	1.00	65.47	A	N
ATOM	1692	C	LYS	A	249	-23.833	97.315	8.735	1.00	59.04	A	C
ATOM	1693	O	LYS	A	249	-24.931	97.369	8.177	1.00	59.06	A	O
ATOM	1694	N	GLU	A	250	-22.822	96.566	8.305	1.00	59.41	A	N
ATOM	1695	CA	GLU	A	250	-22.893	95.749	7.102	1.00	60.48	A	C
ATOM	1696	CB	GLU	A	250	-21.730	94.763	7.082	1.00	61.75	A	C
ATOM	1697	CG	GLU	A	250	-20.394	95.382	7.395	1.00	65.17	A	C
ATOM	1698	CD	GLU	A	250	-19.252	94.378	7.281	1.00	68.59	A	C
ATOM	1699	OE1	GLU	A	250	-18.069	94.782	7.454	1.00	70.41	A	O
ATOM	1700	OE2	GLU	A	250	-19.539	93.182	7.019	1.00	70.14	A	O
ATOM	1701	C	GLU	A	250	-24.199	94.979	6.958	1.00	60.67	A	C
ATOM	1702	O	GLU	A	250	-24.569	94.577	5.865	1.00	61.19	A	O
ATOM	1703	N	HIS	A	251	-24.904	94.768	8.057	1.00	61.40	A	N
ATOM	1704	CA	HIS	A	251	-26.154	94.030	7.995	1.00	62.36	A	C
ATOM	1705	CB	HIS	A	251	-26.438	93.383	9.349	1.00	61.00	A	C
ATOM	1706	CG	HIS	A	251	-25.752	92.068	9.529	1.00	59.13	A	C
ATOM	1707	CD2	HIS	A	251	-26.204	90.878	9.987	1.00	57.69	A	C
ATOM	1708	ND1	HIS	A	251	-24.436	91.867	9.172	1.00	59.08	A	N
ATOM	1709	CE1	HIS	A	251	-24.108	90.608	9.397	1.00	58.34	A	C
ATOM	1710	NE2	HIS	A	251	-25.164	89.986	9.892	1.00	57.79	A	N
ATOM	1711	C	HIS	A	251	-27.331	94.873	7.549	1.00	63.76	A	C
ATOM	1712	O	HIS	A	251	-28.251	94.364	6.902	1.00	64.61	A	O
ATOM	1713	N	GLN	A	252	-27.287	96.159	7.894	1.00	64.48	A	N
ATOM	1714	CA	GLN	A	252	-28.338	97.100	7.533	1.00	64.84	A	C
ATOM	1715	CB	GLN	A	252	-28.264	98.340	8.422	1.00	64.69	A	C
ATOM	1716	CG	GLN	A	252	-28.076	98.053	9.898	1.00	64.67	A	C
ATOM	1717	CD	GLN	A	252	-28.619	99.171	10.797	1.00	65.10	A	C
ATOM	1718	OE1	GLN	A	252	-29.823	99.454	10.793	1.00	65.05	A	O
ATOM	1719	NE2	GLN	A	252	-27.735	99.807	11.569	1.00	64.27	A	N
ATOM	1720	C	GLN	A	252	-28.126	97.500	6.075	1.00	65.86	A	C
ATOM	1721	O	GLN	A	252	-29.081	97.720	5.330	1.00	65.78	A	O

24/514

Figure 1

ATOM	1722	N	GLU	A	253	-26.862	97.566	5.672	1.00	67.35	A	N
ATOM	1723	CA	GLU	A	253	-26.507	97.934	4.307	1.00	69.76	A	C
ATOM	1724	CB	GLU	A	253	-24.988	98.072	4.158	1.00	71.14	A	C
ATOM	1725	CG	GLU	A	253	-24.556	98.816	2.899	1.00	73.16	A	C
ATOM	1726	CD	GLU	A	253	-24.611	100.338	3.074	1.00	74.52	A	C
ATOM	1727	OE1	GLU	A	253	-24.422	101.053	2.069	1.00	76.10	A	O
ATOM	1728	OE2	GLU	A	253	-24.831	100.821	4.213	1.00	74.02	A	O
ATOM	1729	C	GLU	A	253	-26.994	96.874	3.334	1.00	70.91	A	C
ATOM	1730	O	GLU	A	253	-26.997	97.090	2.122	1.00	71.52	A	O
ATOM	1731	N	SER	A	254	-27.398	95.725	3.868	1.00	72.24	A	N
ATOM	1732	CA	SER	A	254	-27.877	94.627	3.037	1.00	73.60	A	C
ATOM	1733	CB	SER	A	254	-26.707	93.710	2.640	1.00	73.40	A	C
ATOM	1734	OG	SER	A	254	-26.066	93.147	3.774	1.00	73.52	A	O
ATOM	1735	C	SER	A	254	-28.972	93.802	3.716	1.00	74.46	A	C
ATOM	1736	O	SER	A	254	-29.038	92.584	3.542	1.00	75.62	A	O
ATOM	1737	N	MET	A	255	-29.830	94.462	4.486	1.00	74.80	A	N
ATOM	1738	CA	MET	A	255	-30.916	93.766	5.162	1.00	75.49	A	C
ATOM	1739	CB	MET	A	255	-31.592	94.689	6.185	1.00	75.95	A	C
ATOM	1740	CG	MET	A	255	-31.110	94.490	7.619	1.00	75.82	A	C
ATOM	1741	SD	MET	A	255	-31.407	92.805	8.222	1.00	77.15	A	S
ATOM	1742	CE	MET	A	255	-33.173	92.899	8.804	1.00	75.86	A	C
ATOM	1743	C	MET	A	255	-31.933	93.301	4.122	1.00	76.23	A	C
ATOM	1744	O	MET	A	255	-32.013	93.876	3.030	1.00	76.92	A	O
ATOM	1745	N	ASP	A	256	-32.692	92.255	4.453	1.00	76.22	A	N
ATOM	1746	CA	ASP	A	256	-33.696	91.727	3.540	1.00	76.51	A	C
ATOM	1747	CB	ASP	A	256	-33.301	90.342	3.033	1.00	76.57	A	C
ATOM	1748	CG	ASP	A	256	-34.130	89.893	1.822	1.00	76.22	A	C
ATOM	1749	OD1	ASP	A	256	-35.369	90.077	1.817	1.00	74.87	A	O
ATOM	1750	OD2	ASP	A	256	-33.530	89.338	0.872	1.00	76.70	A	O
ATOM	1751	C	ASP	A	256	-35.063	91.624	4.173	1.00	77.63	A	C
ATOM	1752	O	ASP	A	256	-35.206	91.253	5.337	1.00	76.88	A	O
ATOM	1753	N	MET	A	257	-36.069	91.943	3.370	1.00	79.66	A	N
ATOM	1754	CA	MET	A	257	-37.459	91.891	3.795	1.00	81.17	A	C
ATOM	1755	CB	MET	A	257	-38.367	92.463	2.685	1.00	82.86	A	C
ATOM	1756	CG	MET	A	257	-37.821	93.698	1.932	1.00	84.55	A	C
ATOM	1757	SD	MET	A	257	-37.448	95.171	2.938	1.00	87.38	A	S
ATOM	1758	CE	MET	A	257	-38.860	96.271	2.570	1.00	86.08	A	C
ATOM	1759	C	MET	A	257	-37.825	90.423	4.059	1.00	79.99	A	C
ATOM	1760	O	MET	A	257	-37.705	89.583	3.164	1.00	79.70	A	O
ATOM	1761	N	ASN	A	258	-38.266	90.116	5.277	1.00	78.36	A	N
ATOM	1762	CA	ASN	A	258	-38.640	88.744	5.606	1.00	76.90	A	C
ATOM	1763	CB	ASN	A	258	-40.005	88.393	4.989	1.00	79.68	A	C
ATOM	1764	CG	ASN	A	258	-41.176	88.918	5.814	1.00	82.12	A	C
ATOM	1765	OD1	ASN	A	258	-41.282	88.633	7.017	1.00	82.00	A	O
ATOM	1766	ND2	ASN	A	258	-42.069	89.674	5.171	1.00	84.05	A	N
ATOM	1767	C	ASN	A	258	-37.579	87.766	5.100	1.00	73.82	A	C
ATOM	1768	O	ASN	A	258	-37.864	86.852	4.325	1.00	73.38	A	O
ATOM	1769	N	ASN	A	259	-36.346	87.974	5.532	1.00	70.35	A	N
ATOM	1770	CA	ASN	A	259	-35.264	87.098	5.133	1.00	66.80	A	C
ATOM	1771	CB	ASN	A	259	-34.904	87.338	3.672	1.00	68.20	A	C
ATOM	1772	CG	ASN	A	259	-35.553	86.334	2.748	1.00	69.24	A	C
ATOM	1773	OD1	ASN	A	259	-35.200	85.151	2.751	1.00	69.66	A	O
ATOM	1774	ND2	ASN	A	259	-36.517	86.797	1.953	1.00	69.60	A	N
ATOM	1775	C	ASN	A	259	-34.029	87.239	5.998	1.00	63.70	A	C
ATOM	1776	O	ASN	A	259	-32.949	87.575	5.500	1.00	64.00	A	O
ATOM	1777	N	PRO	A	260	-34.177	87.013	7.316	1.00	59.83	A	N
ATOM	1778	CD	PRO	A	260	-35.433	87.032	8.079	1.00	59.36	A	C
ATOM	1779	CA	PRO	A	260	-33.048	87.111	8.232	1.00	57.04	A	C
ATOM	1780	CB	PRO	A	260	-33.719	87.120	9.597	1.00	57.37	A	C
ATOM	1781	CG	PRO	A	260	-35.026	87.749	9.325	1.00	57.45	A	C
ATOM	1782	C	PRO	A	260	-32.176	85.887	8.029	1.00	54.91	A	C
ATOM	1783	O	PRO	A	260	-32.619	84.906	7.442	1.00	54.39	A	O
ATOM	1784	N	GLN	A	261	-30.937	85.947	8.497	1.00	53.20	A	N
ATOM	1785	CA	GLN	A	261	-30.037	84.821	8.353	1.00	52.09	A	C
ATOM	1786	CB	GLN	A	261	-29.203	84.956	7.082	1.00	54.11	A	C
ATOM	1787	CG	GLN	A	261	-29.999	84.878	5.786	1.00	57.72	A	C
ATOM	1788	CD	GLN	A	261	-29.749	83.589	5.013	1.00	60.84	A	C
ATOM	1789	OE1	GLN	A	261	-29.830	82.484	5.577	1.00	61.87	A	O
ATOM	1790	NE2	GLN	A	261	-29.452	83.719	3.708	1.00	60.36	A	N
ATOM	1791	C	GLN	A	261	-29.125	84.691	9.558	1.00	50.88	A	C
ATOM	1792	O	GLN	A	261	-28.201	83.883	9.553	1.00	50.66	A	O
ATOM	1793	N	ASP	A	262	-29.373	85.496	10.585	1.00	49.18	A	N
ATOM	1794	CA	ASP	A	262	-28.577	85.422	11.799	1.00	47.97	A	C
ATOM	1795	CB	ASP	A	262	-27.104	85.684	11.498	1.00	49.09	A	C
ATOM	1796	CG	ASP	A	262	-26.876	87.010	10.841	1.00	50.50	A	C

Figure 1

ATOM	1797	OD1	ASP	A	262	-25.762	87.228	10.316	1.00	51.13	A	O
ATOM	1798	OD2	ASP	A	262	-27.811	87.838	10.859	1.00	50.59	A	O
ATOM	1799	C	ASP	A	262	-29.096	86.349	12.878	1.00	46.89	A	C
ATOM	1800	O	ASP	A	262	-30.098	87.029	12.689	1.00	46.73	A	O
ATOM	1801	N	PHE	A	263	-28.414	86.366	14.016	1.00	46.65	A	N
ATOM	1802	CA	PHE	A	263	-28.846	87.154	15.170	1.00	46.66	A	C
ATOM	1803	CB	PHE	A	263	-27.838	87.029	16.297	1.00	44.94	A	C
ATOM	1804	CG	PHE	A	263	-28.367	87.473	17.619	1.00	43.83	A	C
ATOM	1805	CD1	PHE	A	263	-29.275	86.686	18.312	1.00	44.04	A	C
ATOM	1806	CD2	PHE	A	263	-27.957	88.676	18.178	1.00	44.22	A	C
ATOM	1807	CE1	PHE	A	263	-29.773	87.086	19.548	1.00	44.82	A	C
ATOM	1808	CE2	PHE	A	263	-28.448	89.091	19.416	1.00	44.68	A	C
ATOM	1809	CZ	PHE	A	263	-29.357	88.292	20.103	1.00	44.96	A	C
ATOM	1810	C	PHE	A	263	-29.106	88.625	14.928	1.00	47.58	A	C
ATOM	1811	O	PHE	A	263	-30.169	89.153	15.265	1.00	47.76	A	O
ATOM	1812	N	ILE	A	264	-28.108	89.297	14.377	1.00	48.39	A	N
ATOM	1813	CA	ILE	A	264	-28.219	90.712	14.084	1.00	48.20	A	C
ATOM	1814	CB	ILE	A	264	-26.939	91.200	13.377	1.00	48.66	A	C
ATOM	1815	CG2	ILE	A	264	-27.035	92.663	13.078	1.00	48.00	A	C
ATOM	1816	CG1	ILE	A	264	-25.727	90.933	14.267	1.00	47.65	A	C
ATOM	1817	CD1	ILE	A	264	-24.405	91.237	13.595	1.00	48.36	A	C
ATOM	1818	C	ILE	A	264	-29.465	90.972	13.227	1.00	48.17	A	C
ATOM	1819	O	ILE	A	264	-30.336	91.717	13.652	1.00	48.16	A	O
ATOM	1820	N	ASP	A	265	-29.568	90.343	12.053	1.00	48.29	A	N
ATOM	1821	CA	ASP	A	265	-30.731	90.538	11.182	1.00	49.47	A	C
ATOM	1822	CB	ASP	A	265	-30.811	89.466	10.099	1.00	50.71	A	C
ATOM	1823	CG	ASP	A	265	-29.720	89.596	9.071	1.00	53.84	A	C
ATOM	1824	OD1	ASP	A	265	-29.086	90.672	9.039	1.00	55.79	A	O
ATOM	1825	OD2	ASP	A	265	-29.499	88.637	8.286	1.00	54.14	A	O
ATOM	1826	C	ASP	A	265	-32.032	90.509	11.957	1.00	51.09	A	C
ATOM	1827	O	ASP	A	265	-32.788	91.478	11.952	1.00	50.89	A	O
ATOM	1828	N	CYS	A	266	-32.300	89.375	12.597	1.00	52.63	A	N
ATOM	1829	CA	CYS	A	266	-33.510	89.196	13.392	1.00	53.74	A	C
ATOM	1830	CB	CYS	A	266	-33.431	87.915	14.209	1.00	54.13	A	C
ATOM	1831	SG	CYS	A	266	-33.312	86.401	13.260	1.00	55.93	A	S
ATOM	1832	C	CYS	A	266	-33.666	90.355	14.350	1.00	54.82	A	C
ATOM	1833	O	CYS	A	266	-34.710	90.996	14.396	1.00	56.42	A	O
ATOM	1834	N	PHE	A	267	-32.621	90.613	15.126	1.00	55.90	A	N
ATOM	1835	CA	PHE	A	267	-32.641	91.706	16.090	1.00	56.39	A	C
ATOM	1836	CB	PHE	A	267	-31.287	91.823	16.803	1.00	56.98	A	C
ATOM	1837	CG	PHE	A	267	-31.326	92.677	18.045	1.00	57.66	A	C
ATOM	1838	CD1	PHE	A	267	-31.492	92.099	19.298	1.00	58.37	A	C
ATOM	1839	CD2	PHE	A	267	-31.236	94.061	17.958	1.00	58.00	A	C
ATOM	1840	CE1	PHE	A	267	-31.568	92.887	20.446	1.00	58.38	A	C
ATOM	1841	CE2	PHE	A	267	-31.312	94.855	19.098	1.00	57.80	A	C
ATOM	1842	CZ	PHE	A	267	-31.478	94.266	20.343	1.00	58.26	A	C
ATOM	1843	C	PHE	A	267	-32.929	92.991	15.329	1.00	56.02	A	C
ATOM	1844	O	PHE	A	267	-33.816	93.756	15.694	1.00	55.27	A	O
ATOM	1845	N	LEU	A	268	-32.177	93.205	14.256	1.00	56.08	A	N
ATOM	1846	CA	LEU	A	268	-32.327	94.387	13.430	1.00	57.81	A	C
ATOM	1847	CB	LEU	A	268	-31.362	94.329	12.259	1.00	56.45	A	C
ATOM	1848	CG	LEU	A	268	-30.342	95.456	12.159	1.00	55.67	A	C
ATOM	1849	CD1	LEU	A	268	-29.847	95.907	13.525	1.00	55.08	A	C
ATOM	1850	CD2	LEU	A	268	-29.197	94.942	11.302	1.00	55.11	A	C
ATOM	1851	C	LEU	A	268	-33.728	94.589	12.897	1.00	60.44	A	C
ATOM	1852	O	LEU	A	268	-34.155	95.727	12.697	1.00	61.38	A	O
ATOM	1853	N	MET	A	269	-34.453	93.504	12.650	1.00	62.83	A	N
ATOM	1854	CA	MET	A	269	-35.796	93.676	12.127	1.00	65.68	A	C
ATOM	1855	CB	MET	A	269	-36.157	92.590	11.098	1.00	66.48	A	C
ATOM	1856	CG	MET	A	269	-36.281	91.174	11.628	1.00	67.97	A	C
ATOM	1857	SD	MET	A	269	-37.218	90.074	10.511	1.00	70.53	A	S
ATOM	1858	CE	MET	A	269	-36.483	90.465	8.899	1.00	69.89	A	C
ATOM	1859	C	MET	A	269	-36.834	93.738	13.224	1.00	67.56	A	C
ATOM	1860	O	MET	A	269	-37.969	93.311	13.049	1.00	68.36	A	O
ATOM	1861	N	LYS	A	270	-36.436	94.267	14.372	1.00	70.26	A	N
ATOM	1862	CA	LYS	A	270	-37.372	94.434	15.467	1.00	72.64	A	C
ATOM	1863	CB	LYS	A	270	-36.689	94.185	16.803	1.00	71.49	A	C
ATOM	1864	CG	LYS	A	270	-36.978	92.806	17.345	1.00	69.76	A	C
ATOM	1865	CD	LYS	A	270	-38.366	92.758	17.937	1.00	68.33	A	C
ATOM	1866	CE	LYS	A	270	-38.580	91.468	18.687	1.00	67.64	A	C
ATOM	1867	NZ	LYS	A	270	-39.928	91.411	19.302	1.00	67.20	A	N
ATOM	1868	C	LYS	A	270	-37.885	95.866	15.355	1.00	75.73	A	C
ATOM	1869	O	LYS	A	270	-37.944	96.614	16.335	1.00	75.81	A	O
ATOM	1870	N	MET	A	271	-38.235	96.222	14.116	1.00	78.50	A	N
ATOM	1871	CA	MET	A	271	-38.775	97.529	13.756	1.00	80.13	A	C

Figure 1

ATOM	1872	CB	MET	A	271	-38.726	97.716	12.246	1.00	80.90	A	C
ATOM	1873	CG	MET	A	271	-37.372	97.452	11.641	1.00	82.59	A	C
ATOM	1874	SD	MET	A	271	-37.479	97.448	9.845	1.00	85.97	A	S
ATOM	1875	CE	MET	A	271	-37.388	99.226	9.490	1.00	84.51	A	C
ATOM	1876	C	MET	A	271	-40.224	97.556	14.224	1.00	81.24	A	C
ATOM	1877	O	MET	A	271	-40.824	98.619	14.390	1.00	81.28	A	O
ATOM	1878	N	GLU	A	272	-40.768	96.359	14.423	1.00	82.82	A	N
ATOM	1879	CA	GLU	A	272	-42.124	96.170	14.915	1.00	85.05	A	C
ATOM	1880	CB	GLU	A	272	-42.285	94.718	15.402	1.00	85.73	A	C
ATOM	1881	CG	GLU	A	272	-43.642	94.345	16.010	1.00	87.59	A	C
ATOM	1882	CD	GLU	A	272	-43.627	94.246	17.542	1.00	88.78	A	C
ATOM	1883	OE1	GLU	A	272	-44.548	93.608	18.102	1.00	89.56	A	O
ATOM	1884	OE2	GLU	A	272	-42.708	94.798	18.190	1.00	89.00	A	O
ATOM	1885	C	GLU	A	272	-42.315	97.155	16.070	1.00	86.62	A	C
ATOM	1886	O	GLU	A	272	-41.462	97.243	16.963	1.00	86.86	A	O
ATOM	1887	N	LYS	A	273	-43.421	97.899	16.041	1.00	88.29	A	N
ATOM	1888	CA	LYS	A	273	-43.728	98.904	17.067	1.00	89.32	A	C
ATOM	1889	CB	LYS	A	273	-43.795	98.268	18.469	1.00	89.02	A	C
ATOM	1890	CG	LYS	A	273	-44.929	97.284	18.693	1.00	88.45	A	C
ATOM	1891	CD	LYS	A	273	-44.750	96.519	20.002	1.00	88.05	A	C
ATOM	1892	CE	LYS	A	273	-45.786	95.400	20.143	1.00	87.87	A	C
ATOM	1893	NZ	LYS	A	273	-45.429	94.383	21.178	1.00	87.63	A	N
ATOM	1894	C	LYS	A	273	-42.690	100.030	17.090	1.00	89.89	A	C
ATOM	1895	O	LYS	A	273	-41.477	99.782	17.024	1.00	89.52	A	O
ATOM	1896	N	GLU	A	274	-43.180	101.265	17.180	1.00	90.48	A	N
ATOM	1897	CA	GLU	A	274	-42.315	102.443	17.253	1.00	90.84	A	C
ATOM	1898	CB	GLU	A	274	-41.808	102.603	18.701	1.00	90.64	A	C
ATOM	1899	CG	GLU	A	274	-41.191	103.958	19.065	1.00	89.99	A	C
ATOM	1900	CD	GLU	A	274	-40.462	103.931	20.412	1.00	89.49	A	C
ATOM	1901	OE1	GLU	A	274	-39.384	103.303	20.495	1.00	90.20	A	O
ATOM	1902	OE2	GLU	A	274	-40.964	104.530	21.387	1.00	88.35	A	O
ATOM	1903	C	GLU	A	274	-41.124	102.355	16.292	1.00	90.92	A	C
ATOM	1904	O	GLU	A	274	-41.237	102.649	15.104	1.00	90.64	A	O
ATOM	1905	N	LYS	A	275	-39.984	101.929	16.824	1.00	91.29	A	N
ATOM	1906	CA	LYS	A	275	-38.758	101.825	16.045	1.00	91.78	A	C
ATOM	1907	CB	LYS	A	275	-37.857	103.028	16.361	1.00	91.97	A	C
ATOM	1908	CG	LYS	A	275	-38.558	104.385	16.232	1.00	91.70	A	C
ATOM	1909	CD	LYS	A	275	-38.936	104.716	14.789	1.00	92.50	A	C
ATOM	1910	CE	LYS	A	275	-37.712	105.047	13.929	1.00	92.35	A	C
ATOM	1911	NZ	LYS	A	275	-37.020	106.300	14.347	1.00	91.66	A	N
ATOM	1912	C	LYS	A	275	-38.019	100.515	16.349	1.00	91.67	A	C
ATOM	1913	O	LYS	A	275	-37.550	99.859	15.390	1.00	91.56	A	O
ATOM	1914	OXT	LYS	A	275	-37.905	100.167	17.544	1.00	91.78	A	O
TER	1914		LYS	A	275							
ATOM	1915	CB	SER	A	280	-39.060	99.584	23.069	1.00	74.77	A	C
ATOM	1916	OG	SER	A	280	-39.507	99.057	24.310	1.00	79.13	A	O
ATOM	1917	C	SER	A	280	-36.726	99.836	23.927	1.00	71.32	A	C
ATOM	1918	O	SER	A	280	-35.862	100.469	24.532	1.00	71.13	A	O
ATOM	1919	N	SER	A	280	-37.495	101.141	21.945	1.00	71.66	A	N
ATOM	1920	CA	SER	A	280	-37.898	100.560	23.260	1.00	72.45	A	C
ATOM	1921	N	GLU	A	281	-36.711	98.509	23.828	1.00	70.26	A	N
ATOM	1922	CA	GLU	A	281	-35.646	97.694	24.417	1.00	69.15	A	C
ATOM	1923	CB	GLU	A	281	-36.215	96.410	25.031	1.00	70.56	A	C
ATOM	1924	CG	GLU	A	281	-36.473	96.439	26.527	1.00	74.65	A	C
ATOM	1925	CD	GLU	A	281	-37.427	97.535	26.937	1.00	77.89	A	C
ATOM	1926	OE1	GLU	A	281	-36.969	98.688	27.070	1.00	80.62	A	O
ATOM	1927	OE2	GLU	A	281	-38.637	97.254	27.117	1.00	79.87	A	O
ATOM	1928	C	GLU	A	281	-34.592	97.304	23.381	1.00	67.62	A	C
ATOM	1929	O	GLU	A	281	-33.393	97.246	23.676	1.00	67.26	A	O
ATOM	1930	N	PHE	A	282	-35.030	97.037	22.159	1.00	65.32	A	N
ATOM	1931	CA	PHE	A	282	-34.093	96.627	21.131	1.00	63.49	A	C
ATOM	1932	CB	PHE	A	282	-34.799	95.749	20.097	1.00	61.74	A	C
ATOM	1933	CG	PHE	A	282	-35.502	94.582	20.694	1.00	59.40	A	C
ATOM	1934	CD1	PHE	A	282	-36.697	94.757	21.371	1.00	58.85	A	C
ATOM	1935	CD2	PHE	A	282	-34.944	93.314	20.632	1.00	58.91	A	C
ATOM	1936	CE1	PHE	A	282	-37.334	93.687	21.984	1.00	58.78	A	C
ATOM	1937	CE2	PHE	A	282	-35.571	92.232	21.242	1.00	59.04	A	C
ATOM	1938	CZ	PHE	A	282	-36.770	92.420	21.923	1.00	59.25	A	C
ATOM	1939	C	PHE	A	282	-33.388	97.778	20.439	1.00	62.85	A	C
ATOM	1940	O	PHE	A	282	-33.482	97.932	19.220	1.00	64.05	A	O
ATOM	1941	N	THR	A	283	-32.673	98.588	21.210	1.00	61.63	A	N
ATOM	1942	CA	THR	A	283	-31.951	99.703	20.618	1.00	59.39	A	C
ATOM	1943	CB	THR	A	283	-31.593	100.775	21.652	1.00	58.79	A	C
ATOM	1944	OG1	THR	A	283	-30.442	100.366	22.396	1.00	59.63	A	O
ATOM	1945	CG2	THR	A	283	-32.766	101.000	22.597	1.00	58.09	A	C

Figure 1

ATOM	1946	C	THR	A	283	-30.676	99.183	19.974	1.00	58.30	A	C
ATOM	1947	O	THR	A	283	-30.207	98.084	20.260	1.00	56.74	A	O
ATOM	1948	N	ILE	A	284	-30.120	99.982	19.087	1.00	58.90	A	N
ATOM	1949	CA	ILE	A	284	-28.925	99.576	18.393	1.00	59.17	A	C
ATOM	1950	CB	ILE	A	284	-28.509	100.666	17.391	1.00	58.68	A	C
ATOM	1951	CG2	ILE	A	284	-27.288	101.424	17.894	1.00	59.86	A	C
ATOM	1952	CG1	ILE	A	284	-28.220	100.026	16.039	1.00	58.70	A	C
ATOM	1953	CD1	ILE	A	284	-27.012	99.136	16.052	1.00	58.99	A	C
ATOM	1954	C	ILE	A	284	-27.771	99.249	19.340	1.00	60.12	A	C
ATOM	1955	O	ILE	A	284	-26.881	98.478	18.986	1.00	60.71	A	O
ATOM	1956	N	GLU	A	285	-27.776	99.818	20.544	1.00	60.72	A	N
ATOM	1957	CA	GLU	A	285	-26.684	99.551	21.474	1.00	60.44	A	C
ATOM	1958	CB	GLU	A	285	-26.295	100.809	22.247	1.00	60.85	A	C
ATOM	1959	CG	GLU	A	285	-26.916	100.929	23.613	1.00	63.04	A	C
ATOM	1960	CD	GLU	A	285	-26.075	101.792	24.557	1.00	65.29	A	C
ATOM	1961	OE1	GLU	A	285	-24.911	101.410	24.839	1.00	66.14	A	O
ATOM	1962	OE2	GLU	A	285	-26.576	102.849	25.016	1.00	66.32	A	O
ATOM	1963	C	GLU	A	285	-26.980	98.425	22.447	1.00	59.92	A	C
ATOM	1964	O	GLU	A	285	-26.063	97.824	23.005	1.00	61.00	A	O
ATOM	1965	N	SER	A	286	-28.255	98.132	22.659	1.00	58.72	A	N
ATOM	1966	CA	SER	A	286	-28.614	97.046	23.556	1.00	56.41	A	C
ATOM	1967	CB	SER	A	286	-30.100	97.095	23.914	1.00	55.84	A	C
ATOM	1968	OG	SER	A	286	-30.900	96.713	22.812	1.00	53.06	A	O
ATOM	1969	C	SER	A	286	-28.317	95.768	22.797	1.00	56.00	A	C
ATOM	1970	O	SER	A	286	-28.263	94.696	23.382	1.00	57.06	A	O
ATOM	1971	N	LEU	A	287	-28.125	95.891	21.485	1.00	55.99	A	N
ATOM	1972	CA	LEU	A	287	-27.815	94.744	20.634	1.00	55.96	A	C
ATOM	1973	CB	LEU	A	287	-28.036	95.079	19.158	1.00	56.55	A	C
ATOM	1974	CG	LEU	A	287	-27.269	94.247	18.112	1.00	57.20	A	C
ATOM	1975	CD1	LEU	A	287	-27.625	92.776	18.218	1.00	57.86	A	C
ATOM	1976	CD2	LEU	A	287	-27.589	94.769	16.718	1.00	57.36	A	C
ATOM	1977	C	LEU	A	287	-26.372	94.332	20.824	1.00	55.79	A	C
ATOM	1978	O	LEU	A	287	-26.081	93.181	21.145	1.00	56.11	A	O
ATOM	1979	N	GLU	A	288	-25.467	95.280	20.613	1.00	56.08	A	N
ATOM	1980	CA	GLU	A	288	-24.049	95.011	20.767	1.00	56.44	A	C
ATOM	1981	CB	GLU	A	288	-23.229	96.238	20.357	1.00	57.11	A	C
ATOM	1982	CG	GLU	A	288	-23.743	97.545	20.916	1.00	60.08	A	C
ATOM	1983	CD	GLU	A	288	-23.031	98.770	20.334	1.00	62.32	A	C
ATOM	1984	OE1	GLU	A	288	-23.151	99.867	20.940	1.00	63.81	A	O
ATOM	1985	OE2	GLU	A	288	-22.365	98.639	19.278	1.00	61.39	A	O
ATOM	1986	C	GLU	A	288	-23.754	94.587	22.208	1.00	55.74	A	C
ATOM	1987	O	GLU	A	288	-22.690	94.041	22.496	1.00	56.10	A	O
ATOM	1988	N	ASN	A	289	-24.695	94.826	23.116	1.00	53.98	A	N
ATOM	1989	CA	ASN	A	289	-24.490	94.390	24.487	1.00	52.59	A	C
ATOM	1990	CB	ASN	A	289	-25.365	95.165	25.456	1.00	53.71	A	C
ATOM	1991	CG	ASN	A	289	-24.740	96.449	25.872	1.00	54.53	A	C
ATOM	1992	OD1	ASN	A	289	-24.571	97.363	25.067	1.00	55.61	A	O
ATOM	1993	ND2	ASN	A	289	-24.356	96.526	27.146	1.00	56.28	A	N
ATOM	1994	C	ASN	A	289	-24.855	92.927	24.554	1.00	50.71	A	C
ATOM	1995	O	ASN	A	289	-24.094	92.099	25.044	1.00	50.97	A	O
ATOM	1996	N	THR	A	290	-26.033	92.613	24.045	1.00	47.74	A	N
ATOM	1997	CA	THR	A	290	-26.477	91.246	24.037	1.00	45.04	A	C
ATOM	1998	CB	THR	A	290	-27.860	91.130	23.394	1.00	44.96	A	C
ATOM	1999	OG1	THR	A	290	-28.823	91.793	24.220	1.00	43.08	A	O
ATOM	2000	CG2	THR	A	290	-28.243	89.669	23.233	1.00	46.32	A	C
ATOM	2001	C	THR	A	290	-25.466	90.425	23.250	1.00	42.77	A	C
ATOM	2002	O	THR	A	290	-25.124	89.318	23.626	1.00	42.63	A	O
ATOM	2003	N	ALA	A	291	-24.965	90.990	22.169	1.00	40.93	A	N
ATOM	2004	CA	ALA	A	291	-24.002	90.284	21.357	1.00	40.35	A	C
ATOM	2005	CB	ALA	A	291	-23.686	91.092	20.120	1.00	40.84	A	C
ATOM	2006	C	ALA	A	291	-22.729	90.034	22.135	1.00	40.17	A	C
ATOM	2007	O	ALA	A	291	-22.174	88.941	22.109	1.00	39.39	A	O
ATOM	2008	N	VAL	A	292	-22.260	91.059	22.826	1.00	39.76	A	N
ATOM	2009	CA	VAL	A	292	-21.034	90.925	23.571	1.00	39.50	A	C
ATOM	2010	CB	VAL	A	292	-20.541	92.321	23.990	1.00	39.68	A	C
ATOM	2011	CG1	VAL	A	292	-21.341	92.804	25.181	1.00	40.47	A	C
ATOM	2012	CG2	VAL	A	292	-19.036	92.302	24.234	1.00	37.69	A	C
ATOM	2013	C	VAL	A	292	-21.221	89.972	24.758	1.00	39.15	A	C
ATOM	2014	O	VAL	A	292	-20.266	89.359	25.220	1.00	39.62	A	O
ATOM	2015	N	ASP	A	293	-22.447	89.830	25.255	1.00	39.93	A	N
ATOM	2016	CA	ASP	A	293	-22.679	88.892	26.354	1.00	39.11	A	C
ATOM	2017	CB	ASP	A	293	-23.979	89.202	27.084	1.00	38.92	A	C
ATOM	2018	CG	ASP	A	293	-23.828	90.362	28.050	1.00	43.01	A	C
ATOM	2019	OD1	ASP	A	293	-24.749	90.582	28.881	1.00	43.72	A	O
ATOM	2020	OD2	ASP	A	293	-22.783	91.058	27.977	1.00	45.44	A	O

Figure 1

ATOM	2021	C	ASP	A	293	-22.693	87.468	25.815	1.00	38.91	A	C
ATOM	2022	O	ASP	A	293	-22.116	86.574	26.427	1.00	40.44	A	O
ATOM	2023	N	LEU	A	294	-23.327	87.245	24.667	1.00	36.76	A	N
ATOM	2024	CA	LEU	A	294	-23.338	85.909	24.090	1.00	33.65	A	C
ATOM	2025	CB	LEU	A	294	-24.124	85.874	22.794	1.00	31.23	A	C
ATOM	2026	CG	LEU	A	294	-25.588	86.206	23.070	1.00	32.79	A	C
ATOM	2027	CD1	LEU	A	294	-26.359	86.363	21.771	1.00	33.40	A	C
ATOM	2028	CD2	LEU	A	294	-26.184	85.131	23.939	1.00	32.34	A	C
ATOM	2029	C	LEU	A	294	-21.928	85.426	23.825	1.00	32.99	A	C
ATOM	2030	O	LEU	A	294	-21.653	84.241	23.958	1.00	35.78	A	O
ATOM	2031	N	PHE	A	295	-21.026	86.327	23.449	1.00	31.27	A	N
ATOM	2032	CA	PHE	A	295	-19.636	85.931	23.192	1.00	28.88	A	C
ATOM	2033	CB	PHE	A	295	-18.832	87.051	22.545	1.00	29.68	A	C
ATOM	2034	CG	PHE	A	295	-18.862	87.025	21.066	1.00	29.86	A	C
ATOM	2035	CD1	PHE	A	295	-18.120	86.095	20.358	1.00	30.61	A	C
ATOM	2036	CD2	PHE	A	295	-19.692	87.892	20.376	1.00	30.77	A	C
ATOM	2037	CE1	PHE	A	295	-18.207	86.027	18.970	1.00	31.84	A	C
ATOM	2038	CE2	PHE	A	295	-19.791	87.835	19.000	1.00	32.13	A	C
ATOM	2039	CZ	PHE	A	295	-19.047	86.900	18.291	1.00	32.49	A	C
ATOM	2040	C	PHE	A	295	-18.948	85.592	24.479	1.00	27.53	A	C
ATOM	2041	O	PHE	A	295	-18.047	84.767	24.511	1.00	27.35	A	O
ATOM	2042	N	GLY	A	296	-19.357	86.264	25.541	1.00	25.49	A	N
ATOM	2043	CA	GLY	A	296	-18.742	86.022	26.819	1.00	24.78	A	C
ATOM	2044	C	GLY	A	296	-19.309	84.797	27.475	1.00	25.52	A	C
ATOM	2045	O	GLY	A	296	-18.567	83.962	27.979	1.00	27.98	A	O
ATOM	2046	N	ALA	A	297	-20.628	84.686	27.476	1.00	25.30	A	N
ATOM	2047	CA	ALA	A	297	-21.271	83.546	28.094	1.00	26.38	A	C
ATOM	2048	CB	ALA	A	297	-22.727	83.857	28.355	1.00	24.88	A	C
ATOM	2049	C	ALA	A	297	-21.152	82.289	27.240	1.00	28.34	A	C
ATOM	2050	O	ALA	A	297	-21.203	81.172	27.755	1.00	31.07	A	O
ATOM	2051	N	GLY	A	298	-20.976	82.447	25.940	1.00	27.67	A	N
ATOM	2052	CA	GLY	A	298	-20.915	81.252	25.140	1.00	29.26	A	C
ATOM	2053	C	GLY	A	298	-19.555	80.793	24.695	1.00	31.14	A	C
ATOM	2054	O	GLY	A	298	-19.446	79.959	23.798	1.00	34.01	A	O
ATOM	2055	N	THR	A	299	-18.499	81.245	25.338	1.00	29.49	A	N
ATOM	2056	CA	THR	A	299	-17.228	80.861	24.800	1.00	26.79	A	C
ATOM	2057	CB	THR	A	299	-16.680	82.107	24.107	1.00	26.41	A	C
ATOM	2058	OG1	THR	A	299	-15.827	81.744	23.021	1.00	27.57	A	O
ATOM	2059	CG2	THR	A	299	-15.955	82.967	25.092	1.00	27.56	A	C
ATOM	2060	C	THR	A	299	-16.263	80.242	25.804	1.00	26.40	A	C
ATOM	2061	O	THR	A	299	-15.626	79.223	25.533	1.00	25.92	A	O
ATOM	2062	N	GLU	A	300	-16.182	80.827	26.985	1.00	26.01	A	N
ATOM	2063	CA	GLU	A	300	-15.297	80.323	28.020	1.00	26.93	A	C
ATOM	2064	CB	GLU	A	300	-15.236	81.356	29.142	1.00	31.79	A	C
ATOM	2065	CG	GLU	A	300	-14.662	80.829	30.419	1.00	37.36	A	C
ATOM	2066	CD	GLU	A	300	-13.246	80.347	30.233	1.00	42.07	A	C
ATOM	2067	OE1	GLU	A	300	-12.662	79.837	31.219	1.00	47.59	A	O
ATOM	2068	OE2	GLU	A	300	-12.705	80.471	29.106	1.00	42.63	A	O
ATOM	2069	C	GLU	A	300	-15.699	78.949	28.571	1.00	25.84	A	C
ATOM	2070	O	GLU	A	300	-14.999	77.971	28.351	1.00	24.17	A	O
ATOM	2071	N	THR	A	301	-16.831	78.890	29.276	1.00	27.08	A	N
ATOM	2072	CA	THR	A	301	-17.360	77.652	29.890	1.00	27.58	A	C
ATOM	2073	CB	THR	A	301	-18.746	77.872	30.469	1.00	29.49	A	C
ATOM	2074	OG1	THR	A	301	-19.536	78.607	29.522	1.00	34.46	A	O
ATOM	2075	CG2	THR	A	301	-18.660	78.628	31.781	1.00	32.05	A	C
ATOM	2076	C	THR	A	301	-17.468	76.448	28.983	1.00	25.76	A	C
ATOM	2077	O	THR	A	301	-17.297	75.309	29.416	1.00	25.40	A	O
ATOM	2078	N	THR	A	302	-17.780	76.691	27.724	1.00	24.51	A	N
ATOM	2079	CA	THR	A	302	-17.877	75.581	26.819	1.00	25.41	A	C
ATOM	2080	CB	THR	A	302	-18.465	76.008	25.498	1.00	26.05	A	C
ATOM	2081	OG1	THR	A	302	-19.859	76.292	25.658	1.00	31.07	A	O
ATOM	2082	CG2	THR	A	302	-18.292	74.914	24.482	1.00	26.58	A	C
ATOM	2083	C	THR	A	302	-16.470	75.051	26.594	1.00	25.98	A	C
ATOM	2084	O	THR	A	302	-16.149	73.909	26.925	1.00	25.33	A	O
ATOM	2085	N	SER	A	303	-15.622	75.908	26.045	1.00	26.68	A	N
ATOM	2086	CA	SER	A	303	-14.243	75.552	25.755	1.00	27.19	A	C
ATOM	2087	CB	SER	A	303	-13.409	76.795	25.472	1.00	29.13	A	C
ATOM	2088	OG	SER	A	303	-13.753	77.418	24.253	1.00	34.34	A	O
ATOM	2089	C	SER	A	303	-13.576	74.843	26.888	1.00	25.94	A	C
ATOM	2090	O	SER	A	303	-12.917	73.830	26.700	1.00	25.33	A	O
ATOM	2091	N	THR	A	304	-13.705	75.409	28.076	1.00	26.25	A	N
ATOM	2092	CA	THR	A	304	-13.044	74.816	29.219	1.00	26.25	A	C
ATOM	2093	CB	THR	A	304	-13.156	75.726	30.443	1.00	25.12	A	C
ATOM	2094	OG1	THR	A	304	-12.608	75.048	31.572	1.00	25.84	A	O
ATOM	2095	CG2	THR	A	304	-14.602	76.129	30.691	1.00	28.20	A	C

Figure 1

ATOM	2096	C	THR	A	304	-13.590	73.431	29.496	1.00	26.31	A	C
ATOM	2097	O	THR	A	304	-12.850	72.549	29.925	1.00	25.89	A	O
ATOM	2098	N	THR	A	305	-14.884	73.246	29.217	1.00	25.66	A	N
ATOM	2099	CA	THR	A	305	-15.537	71.955	29.400	1.00	22.79	A	C
ATOM	2100	CB	THR	A	305	-17.047	72.053	29.207	1.00	23.12	A	C
ATOM	2101	OG1	THR	A	305	-17.595	72.888	30.222	1.00	23.94	A	O
ATOM	2102	CG2	THR	A	305	-17.696	70.679	29.305	1.00	22.25	A	C
ATOM	2103	C	THR	A	305	-14.975	70.938	28.403	1.00	22.27	A	C
ATOM	2104	O	THR	A	305	-14.672	69.806	28.780	1.00	21.11	A	O
ATOM	2105	N	LEU	A	306	-14.838	71.321	27.136	1.00	21.59	A	N
ATOM	2106	CA	LEU	A	306	-14.263	70.386	26.179	1.00	23.20	A	C
ATOM	2107	CB	LEU	A	306	-14.102	71.005	24.806	1.00	25.43	A	C
ATOM	2108	CG	LEU	A	306	-15.405	71.564	24.302	1.00	29.99	A	C
ATOM	2109	CD1	LEU	A	306	-15.136	72.630	23.246	1.00	30.54	A	C
ATOM	2110	CD2	LEU	A	306	-16.235	70.403	23.753	1.00	31.99	A	C
ATOM	2111	C	LEU	A	306	-12.884	70.038	26.692	1.00	22.80	A	C
ATOM	2112	O	LEU	A	306	-12.525	68.874	26.820	1.00	22.83	A	O
ATOM	2113	N	ARG	A	307	-12.112	71.069	26.994	1.00	22.93	A	N
ATOM	2114	CA	ARG	A	307	-10.761	70.894	27.484	1.00	22.85	A	C
ATOM	2115	CB	ARG	A	307	-10.230	72.211	27.997	1.00	24.53	A	C
ATOM	2116	CG	ARG	A	307	-8.902	72.585	27.398	1.00	27.44	A	C
ATOM	2117	CD	ARG	A	307	-8.319	73.698	28.209	1.00	28.29	A	C
ATOM	2118	NE	ARG	A	307	-9.211	74.846	28.234	1.00	32.35	A	N
ATOM	2119	CZ	ARG	A	307	-9.317	75.670	29.269	1.00	34.22	A	C
ATOM	2120	NH1	ARG	A	307	-8.580	75.439	30.346	1.00	35.76	A	N
ATOM	2121	NH2	ARG	A	307	-10.142	76.723	29.223	1.00	34.04	A	N
ATOM	2122	C	ARG	A	307	-10.720	69.883	28.599	1.00	21.78	A	C
ATOM	2123	O	ARG	A	307	-9.936	68.937	28.567	1.00	21.63	A	O
ATOM	2124	N	TYR	A	308	-11.578	70.103	29.588	1.00	20.38	A	N
ATOM	2125	CA	TYR	A	308	-11.679	69.224	30.734	1.00	19.20	A	C
ATOM	2126	CB	TYR	A	308	-12.681	69.783	31.736	1.00	16.80	A	C
ATOM	2127	CG	TYR	A	308	-12.164	69.697	33.135	1.00	17.26	A	C
ATOM	2128	CD1	TYR	A	308	-12.329	70.759	34.028	1.00	17.03	A	C
ATOM	2129	CE1	TYR	A	308	-11.756	70.725	35.297	1.00	19.31	A	C
ATOM	2130	CD2	TYR	A	308	-11.423	68.584	33.545	1.00	18.45	A	C
ATOM	2131	CE2	TYR	A	308	-10.844	68.529	34.801	1.00	20.48	A	C
ATOM	2132	CZ	TYR	A	308	-11.009	69.602	35.672	1.00	22.48	A	C
ATOM	2133	OH	TYR	A	308	-10.402	69.534	36.902	1.00	26.26	A	O
ATOM	2134	C	TYR	A	308	-12.111	67.835	30.301	1.00	19.96	A	C
ATOM	2135	O	TYR	A	308	-11.685	66.834	30.882	1.00	20.87	A	O
ATOM	2136	N	ALA	A	309	-12.966	67.771	29.285	1.00	18.00	A	N
ATOM	2137	CA	ALA	A	309	-13.415	66.485	28.812	1.00	17.75	A	C
ATOM	2138	CB	ALA	A	309	-14.451	66.642	27.742	1.00	16.62	A	C
ATOM	2139	C	ALA	A	309	-12.241	65.672	28.286	1.00	19.19	A	C
ATOM	2140	O	ALA	A	309	-12.011	64.552	28.746	1.00	18.53	A	O
ATOM	2141	N	LEU	A	310	-11.484	66.223	27.339	1.00	19.81	A	N
ATOM	2142	CA	LEU	A	310	-10.351	65.487	26.787	1.00	20.86	A	C
ATOM	2143	CB	LEU	A	310	-9.619	66.318	25.741	1.00	21.51	A	C
ATOM	2144	CG	LEU	A	310	-10.449	66.657	24.497	1.00	25.25	A	C
ATOM	2145	CD1	LEU	A	310	-9.696	67.711	23.720	1.00	25.53	A	C
ATOM	2146	CD2	LEU	A	310	-10.713	65.429	23.631	1.00	25.87	A	C
ATOM	2147	C	LEU	A	310	-9.374	65.037	27.867	1.00	22.30	A	C
ATOM	2148	O	LEU	A	310	-8.903	63.898	27.850	1.00	23.37	A	O
ATOM	2149	N	LEU	A	311	-9.069	65.909	28.820	1.00	21.44	A	N
ATOM	2150	CA	LEU	A	311	-8.143	65.517	29.863	1.00	20.88	A	C
ATOM	2151	CB	LEU	A	311	-7.903	66.673	30.828	1.00	19.01	A	C
ATOM	2152	CG	LEU	A	311	-7.154	66.352	32.129	1.00	18.49	A	C
ATOM	2153	CD1	LEU	A	311	-5.715	65.971	31.836	1.00	18.00	A	C
ATOM	2154	CD2	LEU	A	311	-7.203	67.545	33.041	1.00	16.88	A	C
ATOM	2155	C	LEU	A	311	-8.679	64.309	30.621	1.00	22.48	A	C
ATOM	2156	O	LEU	A	311	-7.913	63.442	31.024	1.00	22.48	A	O
ATOM	2157	N	LEU	A	312	-9.997	64.246	30.805	1.00	24.25	A	N
ATOM	2158	CA	LEU	A	312	-10.636	63.142	31.535	1.00	24.91	A	C
ATOM	2159	CB	LEU	A	312	-12.027	63.546	31.991	1.00	21.92	A	C
ATOM	2160	CG	LEU	A	312	-12.079	64.347	33.278	1.00	19.90	A	C
ATOM	2161	CD1	LEU	A	312	-13.436	64.956	33.432	1.00	18.64	A	C
ATOM	2162	CD2	LEU	A	312	-11.729	63.451	34.446	1.00	19.07	A	C
ATOM	2163	C	LEU	A	312	-10.755	61.860	30.747	1.00	27.14	A	C
ATOM	2164	O	LEU	A	312	-10.806	60.778	31.328	1.00	28.40	A	O
ATOM	2165	N	LEU	A	313	-10.852	61.992	29.430	1.00	28.19	A	N
ATOM	2166	CA	LEU	A	313	-10.948	60.835	28.573	1.00	30.54	A	C
ATOM	2167	CB	LEU	A	313	-11.518	61.226	27.208	1.00	30.59	A	C
ATOM	2168	CG	LEU	A	313	-13.032	61.341	26.954	1.00	28.96	A	C
ATOM	2169	CD1	LEU	A	313	-13.301	62.204	25.718	1.00	27.46	A	C
ATOM	2170	CD2	LEU	A	313	-13.603	59.968	26.750	1.00	27.44	A	C

Figure 1

ATOM	2171	C	LEU	A	313	-9.544	60.247	28.420	1.00	33.39	A	C
ATOM	2172	O	LEU	A	313	-9.373	59.217	27.779	1.00	35.57	A	O
ATOM	2173	N	LEU	A	314	-8.533	60.910	28.986	1.00	35.30	A	N
ATOM	2174	CA	LEU	A	314	-7.165	60.389	28.936	1.00	36.01	A	C
ATOM	2175	CB	LEU	A	314	-6.117	61.503	28.917	1.00	35.55	A	C
ATOM	2176	CG	LEU	A	314	-5.901	62.382	27.682	1.00	36.63	A	C
ATOM	2177	CD1	LEU	A	314	-5.037	63.570	28.051	1.00	34.59	A	C
ATOM	2178	CD2	LEU	A	314	-5.248	61.581	26.563	1.00	36.53	A	C
ATOM	2179	C	LEU	A	314	-7.024	59.617	30.229	1.00	36.18	A	C
ATOM	2180	O	LEU	A	314	-6.675	58.448	30.248	1.00	37.31	A	O
ATOM	2181	N	LYS	A	315	-7.323	60.277	31.327	1.00	37.02	A	N
ATOM	2182	CA	LYS	A	315	-7.219	59.625	32.602	1.00	39.35	A	C
ATOM	2183	CB	LYS	A	315	-7.798	60.542	33.667	1.00	38.65	A	C
ATOM	2184	CG	LYS	A	315	-7.557	60.069	35.064	1.00	38.95	A	C
ATOM	2185	CD	LYS	A	315	-6.099	60.174	35.422	1.00	39.68	A	C
ATOM	2186	CE	LYS	A	315	-5.910	60.037	36.915	1.00	40.12	A	C
ATOM	2187	NZ	LYS	A	315	-4.474	59.945	37.233	1.00	39.66	A	N
ATOM	2188	C	LYS	A	315	-7.938	58.256	32.611	1.00	40.89	A	C
ATOM	2189	O	LYS	A	315	-7.495	57.325	33.294	1.00	42.69	A	O
ATOM	2190	N	HIS	A	316	-9.029	58.131	31.844	1.00	40.89	A	N
ATOM	2191	CA	HIS	A	316	-9.828	56.890	31.780	1.00	39.53	A	C
ATOM	2192	CB	HIS	A	316	-11.213	57.117	32.333	1.00	38.52	A	C
ATOM	2193	CG	HIS	A	316	-11.220	58.001	33.520	1.00	36.60	A	C
ATOM	2194	CD2	HIS	A	316	-11.739	59.232	33.709	1.00	37.63	A	C
ATOM	2195	ND1	HIS	A	316	-10.577	57.665	34.684	1.00	36.13	A	N
ATOM	2196	CE1	HIS	A	316	-10.699	58.653	35.549	1.00	36.12	A	C
ATOM	2197	NE2	HIS	A	316	-11.399	59.615	34.982	1.00	37.58	A	N
ATOM	2198	C	HIS	A	316	-10.007	56.368	30.387	1.00	39.50	A	C
ATOM	2199	O	HIS	A	316	-11.092	56.468	29.807	1.00	38.71	A	O
ATOM	2200	N	PRO	A	317	-8.945	55.795	29.829	1.00	39.15	A	N
ATOM	2201	CD	PRO	A	317	-7.624	55.515	30.416	1.00	38.02	A	C
ATOM	2202	CA	PRO	A	317	-9.052	55.265	28.477	1.00	38.68	A	C
ATOM	2203	CB	PRO	A	317	-7.651	54.726	28.219	1.00	38.15	A	C
ATOM	2204	CG	PRO	A	317	-7.168	54.368	29.594	1.00	38.21	A	C
ATOM	2205	C	PRO	A	317	-10.148	54.206	28.354	1.00	38.78	A	C
ATOM	2206	O	PRO	A	317	-10.762	54.082	27.309	1.00	38.80	A	O
ATOM	2207	N	GLU	A	318	-10.409	53.463	29.424	1.00	40.00	A	N
ATOM	2208	CA	GLU	A	318	-11.439	52.429	29.390	1.00	42.04	A	C
ATOM	2209	CB	GLU	A	318	-11.551	51.748	30.756	1.00	44.80	A	C
ATOM	2210	CG	GLU	A	318	-11.990	52.654	31.896	1.00	52.02	A	C
ATOM	2211	CD	GLU	A	318	-10.893	53.622	32.387	1.00	54.86	A	C
ATOM	2212	OE1	GLU	A	318	-9.789	53.676	31.788	1.00	54.45	A	O
ATOM	2213	OE2	GLU	A	318	-11.160	54.341	33.385	1.00	57.92	A	O
ATOM	2214	C	GLU	A	318	-12.797	52.993	28.966	1.00	41.53	A	C
ATOM	2215	O	GLU	A	318	-13.546	52.376	28.198	1.00	41.67	A	O
ATOM	2216	N	VAL	A	319	-13.092	54.183	29.468	1.00	41.17	A	N
ATOM	2217	CA	VAL	A	319	-14.333	54.888	29.180	1.00	39.40	A	C
ATOM	2218	CB	VAL	A	319	-14.482	56.054	30.156	1.00	38.16	A	C
ATOM	2219	CG1	VAL	A	319	-15.581	56.996	29.705	1.00	38.47	A	C
ATOM	2220	CG2	VAL	A	319	-14.780	55.502	31.527	1.00	37.76	A	C
ATOM	2221	C	VAL	A	319	-14.341	55.410	27.746	1.00	38.81	A	C
ATOM	2222	O	VAL	A	319	-15.364	55.381	27.067	1.00	38.18	A	O
ATOM	2223	N	THR	A	320	-13.183	55.887	27.306	1.00	37.70	A	N
ATOM	2224	CA	THR	A	320	-13.012	56.416	25.968	1.00	37.04	A	C
ATOM	2225	CB	THR	A	320	-11.563	56.915	25.757	1.00	37.86	A	C
ATOM	2226	OG1	THR	A	320	-11.244	57.885	26.755	1.00	39.12	A	O
ATOM	2227	CG2	THR	A	320	-11.404	57.556	24.382	1.00	39.76	A	C
ATOM	2228	C	THR	A	320	-13.306	55.325	24.947	1.00	35.65	A	C
ATOM	2229	O	THR	A	320	-13.960	55.561	23.932	1.00	35.14	A	O
ATOM	2230	N	ALA	A	321	-12.810	54.130	25.235	1.00	35.02	A	N
ATOM	2231	CA	ALA	A	321	-12.996	52.989	24.360	1.00	34.76	A	C
ATOM	2232	CB	ALA	A	321	-12.329	51.768	24.945	1.00	34.30	A	C
ATOM	2233	C	ALA	A	321	-14.473	52.728	24.169	1.00	34.73	A	C
ATOM	2234	O	ALA	A	321	-14.964	52.687	23.040	1.00	34.36	A	O
ATOM	2235	N	LYS	A	322	-15.185	52.532	25.270	1.00	34.21	A	N
ATOM	2236	CA	LYS	A	322	-16.602	52.299	25.152	1.00	34.92	A	C
ATOM	2237	CB	LYS	A	322	-17.271	52.277	26.521	1.00	36.74	A	C
ATOM	2238	CG	LYS	A	322	-16.791	51.140	27.413	1.00	39.78	A	C
ATOM	2239	CD	LYS	A	322	-17.719	50.981	28.599	1.00	42.82	A	C
ATOM	2240	CE	LYS	A	322	-17.180	50.003	29.625	1.00	44.46	A	C
ATOM	2241	NZ	LYS	A	322	-15.914	50.487	30.270	1.00	47.27	A	N
ATOM	2242	C	LYS	A	322	-17.171	53.416	24.295	1.00	34.61	A	C
ATOM	2243	O	LYS	A	322	-17.842	53.154	23.310	1.00	35.70	A	O
ATOM	2244	N	VAL	A	323	-16.875	54.663	24.633	1.00	34.05	A	N
ATOM	2245	CA	VAL	A	323	-17.404	55.757	23.841	1.00	33.87	A	C

Figure 1

ATOM	2246	CB	VAL	A	323	-16.870	57.118	24.280	1.00	32.65	A	C
ATOM	2247	CG1	VAL	A	323	-17.351	58.204	23.308	1.00	29.56	A	C
ATOM	2248	CG2	VAL	A	323	-17.357	57.427	25.664	1.00	31.83	A	C
ATOM	2249	C	VAL	A	323	-17.059	55.583	22.384	1.00	35.24	A	C
ATOM	2250	O	VAL	A	323	-17.853	55.910	21.510	1.00	35.97	A	O
ATOM	2251	N	GLN	A	324	-15.874	55.074	22.107	1.00	36.55	A	N
ATOM	2252	CA	GLN	A	324	-15.499	54.901	20.724	1.00	38.40	A	C
ATOM	2253	CB	GLN	A	324	-13.995	54.654	20.602	1.00	38.31	A	C
ATOM	2254	CG	GLN	A	324	-13.310	55.760	19.819	1.00	38.75	A	C
ATOM	2255	CD	GLN	A	324	-11.949	56.100	20.339	1.00	40.50	A	C
ATOM	2256	OE1	GLN	A	324	-11.284	56.989	19.812	1.00	41.82	A	O
ATOM	2257	NE2	GLN	A	324	-11.520	55.406	21.387	1.00	41.49	A	N
ATOM	2258	C	GLN	A	324	-16.274	53.776	20.081	1.00	39.59	A	C
ATOM	2259	O	GLN	A	324	-16.699	53.895	18.931	1.00	39.35	A	O
ATOM	2260	N	GLU	A	325	-16.472	52.689	20.820	1.00	41.11	A	N
ATOM	2261	CA	GLU	A	325	-17.198	51.559	20.272	1.00	43.16	A	C
ATOM	2262	CB	GLU	A	325	-17.133	50.373	21.219	1.00	46.00	A	C
ATOM	2263	CG	GLU	A	325	-16.269	49.252	20.687	1.00	53.84	A	C
ATOM	2264	CD	GLU	A	325	-16.630	48.854	19.249	1.00	58.16	A	C
ATOM	2265	OE1	GLU	A	325	-17.842	48.664	18.959	1.00	59.55	A	O
ATOM	2266	OE2	GLU	A	325	-15.697	48.725	18.414	1.00	60.82	A	O
ATOM	2267	C	GLU	A	325	-18.650	51.908	19.983	1.00	42.89	A	C
ATOM	2268	O	GLU	A	325	-19.284	51.297	19.131	1.00	43.84	A	O
ATOM	2269	N	GLU	A	326	-19.167	52.903	20.694	1.00	42.19	A	N
ATOM	2270	CA	GLU	A	326	-20.541	53.336	20.524	1.00	41.58	A	C
ATOM	2271	CB	GLU	A	326	-21.004	54.115	21.756	1.00	41.22	A	C
ATOM	2272	CG	GLU	A	326	-22.430	54.616	21.693	1.00	43.37	A	C
ATOM	2273	CD	GLU	A	326	-23.076	54.746	23.058	1.00	45.64	A	C
ATOM	2274	OE1	GLU	A	326	-23.844	53.838	23.448	1.00	47.83	A	O
ATOM	2275	OE2	GLU	A	326	-22.819	55.750	23.750	1.00	47.03	A	O
ATOM	2276	C	GLU	A	326	-20.664	54.203	19.284	1.00	41.88	A	C
ATOM	2277	O	GLU	A	326	-21.671	54.164	18.582	1.00	43.06	A	O
ATOM	2278	N	ILE	A	327	-19.645	54.995	18.998	1.00	41.99	A	N
ATOM	2279	CA	ILE	A	327	-19.705	55.853	17.822	1.00	42.26	A	C
ATOM	2280	CB	ILE	A	327	-18.517	56.854	17.791	1.00	39.88	A	C
ATOM	2281	CG2	ILE	A	327	-18.391	57.490	16.438	1.00	37.59	A	C
ATOM	2282	CG1	ILE	A	327	-18.758	57.965	18.803	1.00	37.31	A	C
ATOM	2283	CD1	ILE	A	327	-17.502	58.591	19.299	1.00	37.61	A	C
ATOM	2284	C	ILE	A	327	-19.689	54.990	16.578	1.00	43.90	A	C
ATOM	2285	O	ILE	A	327	-20.580	55.095	15.737	1.00	43.21	A	O
ATOM	2286	N	GLU	A	328	-18.677	54.128	16.489	1.00	46.50	A	N
ATOM	2287	CA	GLU	A	328	-18.485	53.235	15.351	1.00	48.59	A	C
ATOM	2288	CB	GLU	A	328	-17.276	52.345	15.591	1.00	50.86	A	C
ATOM	2289	CG	GLU	A	328	-16.715	51.753	14.319	1.00	56.96	A	C
ATOM	2290	CD	GLU	A	328	-15.342	51.109	14.531	1.00	61.79	A	C
ATOM	2291	OE1	GLU	A	328	-14.408	51.819	15.008	1.00	63.12	A	O
ATOM	2292	OE2	GLU	A	328	-15.202	49.891	14.223	1.00	64.05	A	O
ATOM	2293	C	GLU	A	328	-19.690	52.367	15.038	1.00	48.51	A	C
ATOM	2294	O	GLU	A	328	-19.862	51.903	13.911	1.00	49.71	A	O
ATOM	2295	N	ARG	A	329	-20.528	52.144	16.039	1.00	47.66	A	N
ATOM	2296	CA	ARG	A	329	-21.710	51.333	15.849	1.00	45.48	A	C
ATOM	2297	CB	ARG	A	329	-22.047	50.613	17.148	1.00	43.73	A	C
ATOM	2298	CG	ARG	A	329	-23.411	49.940	17.187	1.00	42.73	A	C
ATOM	2299	CD	ARG	A	329	-23.359	48.775	18.156	1.00	40.93	A	C
ATOM	2300	NE	ARG	A	329	-22.862	49.254	19.428	1.00	39.71	A	N
ATOM	2301	CZ	ARG	A	329	-23.533	50.107	20.185	1.00	40.12	A	C
ATOM	2302	NH1	ARG	A	329	-24.724	50.535	19.780	1.00	39.92	A	N
ATOM	2303	NH2	ARG	A	329	-22.997	50.572	21.309	1.00	39.50	A	N
ATOM	2304	C	ARG	A	329	-22.895	52.144	15.345	1.00	45.24	A	C
ATOM	2305	O	ARG	A	329	-23.468	51.799	14.325	1.00	46.43	A	O
ATOM	2306	N	VAL	A	330	-23.265	53.224	16.025	1.00	44.73	A	N
ATOM	2307	CA	VAL	A	330	-24.401	54.007	15.556	1.00	44.36	A	C
ATOM	2308	CB	VAL	A	330	-25.171	54.659	16.722	1.00	44.16	A	C
ATOM	2309	CG1	VAL	A	330	-24.858	53.929	18.008	1.00	44.51	A	C
ATOM	2310	CG2	VAL	A	330	-24.849	56.131	16.823	1.00	45.37	A	C
ATOM	2311	C	VAL	A	330	-24.047	55.088	14.546	1.00	44.16	A	C
ATOM	2312	O	VAL	A	330	-24.930	55.668	13.927	1.00	44.73	A	O
ATOM	2313	N	ILE	A	331	-22.763	55.380	14.402	1.00	44.44	A	N
ATOM	2314	CA	ILE	A	331	-22.311	56.379	13.443	1.00	46.17	A	C
ATOM	2315	CB	ILE	A	331	-21.780	57.668	14.129	1.00	44.98	A	C
ATOM	2316	CG2	ILE	A	331	-21.251	58.627	13.061	1.00	43.85	A	C
ATOM	2317	CG1	ILE	A	331	-22.875	58.315	14.995	1.00	45.15	A	C
ATOM	2318	CD1	ILE	A	331	-22.384	59.315	16.052	1.00	41.00	A	C
ATOM	2319	C	ILE	A	331	-21.144	55.717	12.738	1.00	49.25	A	C
ATOM	2320	O	ILE	A	331	-20.204	55.262	13.385	1.00	51.31	A	O

Figure 1

ATOM	2321	N	GLY	A	332	-21.173	55.652	11.418	1.00	51.20	A	N
ATOM	2322	CA	GLY	A	332	-20.056	55.008	10.746	1.00	55.10	A	C
ATOM	2323	C	GLY	A	332	-18.768	55.810	10.772	1.00	56.81	A	C
ATOM	2324	O	GLY	A	332	-18.689	56.861	11.400	1.00	56.88	A	O
ATOM	2325	N	ARG	A	333	-17.749	55.297	10.096	1.00	59.15	A	N
ATOM	2326	CA	ARG	A	333	-16.481	55.990	10.009	1.00	61.57	A	C
ATOM	2327	CB	ARG	A	333	-15.368	55.033	9.565	1.00	64.06	A	C
ATOM	2328	CG	ARG	A	333	-15.358	53.712	10.311	1.00	69.84	A	C
ATOM	2329	CD	ARG	A	333	-14.569	52.627	9.564	1.00	74.48	A	C
ATOM	2330	NE	ARG	A	333	-14.892	52.593	8.136	1.00	78.36	A	N
ATOM	2331	CZ	ARG	A	333	-14.571	51.599	7.311	1.00	79.81	A	C
ATOM	2332	NH1	ARG	A	333	-13.917	50.539	7.775	1.00	80.76	A	N
ATOM	2333	NH2	ARG	A	333	-14.901	51.671	6.022	1.00	79.87	A	N
ATOM	2334	C	ARG	A	333	-16.706	57.049	8.931	1.00	61.45	A	C
ATOM	2335	O	ARG	A	333	-15.909	57.970	8.762	1.00	62.42	A	O
ATOM	2336	N	ASN	A	334	-17.815	56.919	8.210	1.00	60.14	A	N
ATOM	2337	CA	ASN	A	334	-18.111	57.852	7.145	1.00	58.78	A	C
ATOM	2338	CB	ASN	A	334	-18.932	57.161	6.064	1.00	59.38	A	C
ATOM	2339	CG	ASN	A	334	-18.224	55.949	5.514	1.00	61.23	A	C
ATOM	2340	OD1	ASN	A	334	-17.078	55.674	5.880	1.00	62.90	A	O
ATOM	2341	ND2	ASN	A	334	-18.891	55.214	4.635	1.00	62.88	A	N
ATOM	2342	C	ASN	A	334	-18.786	59.129	7.603	1.00	57.09	A	C
ATOM	2343	O	ASN	A	334	-18.117	60.061	8.064	1.00	58.61	A	O
ATOM	2344	N	ARG	A	335	-20.105	59.178	7.488	1.00	53.76	A	N
ATOM	2345	CA	ARG	A	335	-20.841	60.369	7.869	1.00	50.35	A	C
ATOM	2346	CB	ARG	A	335	-22.336	60.094	7.909	1.00	49.81	A	C
ATOM	2347	CG	ARG	A	335	-22.841	59.568	9.209	1.00	48.65	A	C
ATOM	2348	CD	ARG	A	335	-24.326	59.398	9.088	1.00	49.71	A	C
ATOM	2349	NE	ARG	A	335	-25.020	59.728	10.326	1.00	52.35	A	N
ATOM	2350	CZ	ARG	A	335	-25.402	58.834	11.225	1.00	52.19	A	C
ATOM	2351	NH1	ARG	A	335	-25.158	57.545	11.018	1.00	53.60	A	N
ATOM	2352	NH2	ARG	A	335	-26.024	59.234	12.324	1.00	52.28	A	N
ATOM	2353	C	ARG	A	335	-20.416	60.997	9.184	1.00	48.36	A	C
ATOM	2354	O	ARG	A	335	-19.639	60.439	9.954	1.00	47.98	A	O
ATOM	2355	N	SER	A	336	-20.946	62.181	9.430	1.00	46.16	A	N
ATOM	2356	CA	SER	A	336	-20.612	62.911	10.626	1.00	44.75	A	C
ATOM	2357	CB	SER	A	336	-20.382	64.374	10.270	1.00	47.04	A	C
ATOM	2358	OG	SER	A	336	-19.308	64.481	9.351	1.00	52.24	A	O
ATOM	2359	C	SER	A	336	-21.684	62.793	11.687	1.00	42.21	A	C
ATOM	2360	O	SER	A	336	-22.864	62.634	11.385	1.00	42.75	A	O
ATOM	2361	N	PRO	A	337	-21.276	62.854	12.957	1.00	39.33	A	N
ATOM	2362	CD	PRO	A	337	-19.888	62.912	13.449	1.00	37.01	A	C
ATOM	2363	CA	PRO	A	337	-22.226	62.755	14.061	1.00	38.76	A	C
ATOM	2364	CB	PRO	A	337	-21.350	62.993	15.280	1.00	36.77	A	C
ATOM	2365	CG	PRO	A	337	-20.023	62.444	14.868	1.00	36.78	A	C
ATOM	2366	C	PRO	A	337	-23.317	63.812	13.949	1.00	39.81	A	C
ATOM	2367	O	PRO	A	337	-23.032	64.958	13.604	1.00	42.91	A	O
ATOM	2368	N	CYS	A	338	-24.567	63.447	14.203	1.00	39.33	A	N
ATOM	2369	CA	CYS	A	338	-25.625	64.454	14.180	1.00	38.63	A	C
ATOM	2370	CB	CYS	A	338	-26.646	64.212	13.062	1.00	39.85	A	C
ATOM	2371	SG	CYS	A	338	-27.526	62.634	13.112	1.00	46.49	A	S
ATOM	2372	C	CYS	A	338	-26.291	64.407	15.542	1.00	37.07	A	C
ATOM	2373	O	CYS	A	338	-26.049	63.490	16.321	1.00	36.06	A	O
ATOM	2374	N	MET	A	339	-27.113	65.395	15.852	1.00	36.00	A	N
ATOM	2375	CA	MET	A	339	-27.740	65.401	17.153	1.00	35.61	A	C
ATOM	2376	CB	MET	A	339	-28.427	66.737	17.412	1.00	33.01	A	C
ATOM	2377	CG	MET	A	339	-27.500	67.759	17.976	1.00	31.26	A	C
ATOM	2378	SD	MET	A	339	-26.479	67.017	19.282	1.00	33.05	A	S
ATOM	2379	CE	MET	A	339	-27.583	66.823	20.649	1.00	29.13	A	C
ATOM	2380	C	MET	A	339	-28.729	64.271	17.347	1.00	37.33	A	C
ATOM	2381	O	MET	A	339	-29.301	64.128	18.422	1.00	38.32	A	O
ATOM	2382	N	GLN	A	340	-28.930	63.452	16.322	1.00	38.89	A	N
ATOM	2383	CA	GLN	A	340	-29.880	62.359	16.439	1.00	39.34	A	C
ATOM	2384	CB	GLN	A	340	-30.551	62.096	15.100	1.00	40.87	A	C
ATOM	2385	CG	GLN	A	340	-31.865	62.814	14.884	1.00	44.39	A	C
ATOM	2386	CD	GLN	A	340	-32.574	62.292	13.630	1.00	48.35	A	C
ATOM	2387	OE1	GLN	A	340	-32.755	61.074	13.466	1.00	50.60	A	O
ATOM	2388	NE2	GLN	A	340	-32.972	63.203	12.741	1.00	49.24	A	N
ATOM	2389	C	GLN	A	340	-29.276	61.068	16.958	1.00	39.51	A	C
ATOM	2390	O	GLN	A	340	-29.994	60.134	17.273	1.00	39.63	A	O
ATOM	2391	N	ASP	A	341	-27.960	61.002	17.062	1.00	41.21	A	N
ATOM	2392	CA	ASP	A	341	-27.338	59.778	17.542	1.00	42.59	A	C
ATOM	2393	CB	ASP	A	341	-25.992	59.550	16.872	1.00	45.83	A	C
ATOM	2394	CG	ASP	A	341	-26.068	59.671	15.372	1.00	48.98	A	C
ATOM	2395	OD1	ASP	A	341	-27.070	59.177	14.796	1.00	51.48	A	O

Figure 1

ATOM	2396	OD2	ASP	A	341	-25.131	60.252	14.774	1.00	48.49	A	O
ATOM	2397	C	ASP	A	341	-27.107	59.756	19.022	1.00	43.09	A	C
ATOM	2398	O	ASP	A	341	-26.420	58.872	19.521	1.00	43.53	A	O
ATOM	2399	N	ARG	A	342	-27.663	60.716	19.736	1.00	43.35	A	N
ATOM	2400	CA	ARG	A	342	-27.445	60.738	21.164	1.00	44.11	A	C
ATOM	2401	CB	ARG	A	342	-27.671	62.159	21.693	1.00	43.91	A	C
ATOM	2402	CG	ARG	A	342	-27.581	62.303	23.185	1.00	42.66	A	C
ATOM	2403	CD	ARG	A	342	-26.960	63.596	23.531	1.00	45.91	A	C
ATOM	2404	NE	ARG	A	342	-27.755	64.744	23.108	1.00	50.90	A	N
ATOM	2405	CZ	ARG	A	342	-28.824	65.185	23.757	1.00	53.14	A	C
ATOM	2406	NH1	ARG	A	342	-29.219	64.559	24.859	1.00	55.08	A	N
ATOM	2407	NH2	ARG	A	342	-29.481	66.257	23.324	1.00	53.21	A	N
ATOM	2408	C	ARG	A	342	-28.320	59.708	21.888	1.00	45.09	A	C
ATOM	2409	O	ARG	A	342	-27.879	59.088	22.858	1.00	45.40	A	O
ATOM	2410	N	SER	A	343	-29.550	59.524	21.419	1.00	45.20	A	N
ATOM	2411	CA	SER	A	343	-30.440	58.550	22.024	1.00	46.54	A	C
ATOM	2412	CB	SER	A	343	-31.814	58.635	21.400	1.00	49.88	A	C
ATOM	2413	OG	SER	A	343	-31.694	58.315	20.029	1.00	56.25	A	O
ATOM	2414	C	SER	A	343	-29.900	57.142	21.806	1.00	45.25	A	C
ATOM	2415	O	SER	A	343	-30.007	56.284	22.675	1.00	47.21	A	O
ATOM	2416	N	HIS	A	344	-29.326	56.880	20.645	1.00	43.07	A	N
ATOM	2417	CA	HIS	A	344	-28.793	55.547	20.413	1.00	43.16	A	C
ATOM	2418	CB	HIS	A	344	-28.761	55.229	18.922	1.00	44.79	A	C
ATOM	2419	CG	HIS	A	344	-30.037	55.567	18.234	1.00	48.47	A	C
ATOM	2420	CD2	HIS	A	344	-31.314	55.553	18.682	1.00	49.90	A	C
ATOM	2421	ND1	HIS	A	344	-30.079	56.106	16.965	1.00	49.91	A	N
ATOM	2422	CE1	HIS	A	344	-31.327	56.419	16.667	1.00	51.06	A	C
ATOM	2423	NE2	HIS	A	344	-32.096	56.095	17.692	1.00	51.45	A	N
ATOM	2424	C	HIS	A	344	-27.404	55.438	20.989	1.00	41.72	A	C
ATOM	2425	O	HIS	A	344	-26.685	54.484	20.709	1.00	42.32	A	O
ATOM	2426	N	MET	A	345	-27.026	56.421	21.796	1.00	39.61	A	N
ATOM	2427	CA	MET	A	345	-25.710	56.425	22.416	1.00	37.78	A	C
ATOM	2428	CB	MET	A	345	-24.780	57.365	21.670	1.00	34.92	A	C
ATOM	2429	CG	MET	A	345	-24.493	56.916	20.285	1.00	31.25	A	C
ATOM	2430	SD	MET	A	345	-23.616	58.130	19.357	1.00	31.14	A	S
ATOM	2431	CE	MET	A	345	-21.980	57.782	19.861	1.00	27.69	A	C
ATOM	2432	C	MET	A	345	-25.779	56.837	23.880	1.00	38.18	A	C
ATOM	2433	O	MET	A	345	-25.201	57.847	24.283	1.00	36.94	A	O
ATOM	2434	N	PRO	A	346	-26.470	56.031	24.702	1.00	38.71	A	N
ATOM	2435	CD	PRO	A	346	-27.069	54.728	24.365	1.00	38.34	A	C
ATOM	2436	CA	PRO	A	346	-26.627	56.300	26.131	1.00	38.00	A	C
ATOM	2437	CB	PRO	A	346	-27.457	55.115	26.611	1.00	37.86	A	C
ATOM	2438	CG	PRO	A	346	-27.028	54.026	25.692	1.00	38.00	A	C
ATOM	2439	C	PRO	A	346	-25.328	56.413	26.890	1.00	36.76	A	C
ATOM	2440	O	PRO	A	346	-25.232	57.176	27.851	1.00	37.92	A	O
ATOM	2441	N	TYR	A	347	-24.325	55.658	26.466	1.00	34.31	A	N
ATOM	2442	CA	TYR	A	347	-23.067	55.699	27.179	1.00	32.48	A	C
ATOM	2443	CB	TYR	A	347	-22.189	54.545	26.762	1.00	31.22	A	C
ATOM	2444	CG	TYR	A	347	-20.948	54.472	27.589	1.00	31.44	A	C
ATOM	2445	CD1	TYR	A	347	-20.962	53.884	28.843	1.00	31.31	A	C
ATOM	2446	CE1	TYR	A	347	-19.824	53.856	29.628	1.00	32.58	A	C
ATOM	2447	CD2	TYR	A	347	-19.767	55.031	27.137	1.00	31.92	A	C
ATOM	2448	CE2	TYR	A	347	-18.627	55.010	27.911	1.00	33.53	A	C
ATOM	2449	CZ	TYR	A	347	-18.655	54.421	29.157	1.00	33.11	A	C
ATOM	2450	OH	TYR	A	347	-17.506	54.383	29.919	1.00	33.32	A	O
ATOM	2451	C	TYR	A	347	-22.324	57.013	26.963	1.00	31.71	A	C
ATOM	2452	O	TYR	A	347	-21.775	57.595	27.907	1.00	31.15	A	O
ATOM	2453	N	THR	A	348	-22.295	57.465	25.713	1.00	30.20	A	N
ATOM	2454	CA	THR	A	348	-21.630	58.714	25.369	1.00	28.31	A	C
ATOM	2455	CB	THR	A	348	-21.644	58.947	23.880	1.00	26.89	A	C
ATOM	2456	OG1	THR	A	348	-20.993	57.852	23.234	1.00	30.47	A	O
ATOM	2457	CG2	THR	A	348	-20.940	60.233	23.542	1.00	22.83	A	C
ATOM	2458	C	THR	A	348	-22.401	59.839	26.025	1.00	28.63	A	C
ATOM	2459	O	THR	A	348	-21.835	60.709	26.689	1.00	29.24	A	O
ATOM	2460	N	ASP	A	349	-23.711	59.814	25.834	1.00	28.11	A	N
ATOM	2461	CA	ASP	A	349	-24.556	60.811	26.436	1.00	26.94	A	C
ATOM	2462	CB	ASP	A	349	-26.029	60.452	26.298	1.00	28.71	A	C
ATOM	2463	CG	ASP	A	349	-26.950	61.652	26.527	1.00	31.24	A	C
ATOM	2464	OD1	ASP	A	349	-26.501	62.637	27.158	1.00	31.78	A	O
ATOM	2465	OD2	ASP	A	349	-28.130	61.610	26.084	1.00	32.29	A	O
ATOM	2466	C	ASP	A	349	-24.187	60.789	27.898	1.00	26.55	A	C
ATOM	2467	O	ASP	A	349	-24.111	61.836	28.533	1.00	27.03	A	O
ATOM	2468	N	ALA	A	350	-23.929	59.606	28.445	1.00	25.81	A	N
ATOM	2469	CA	ALA	A	350	-23.578	59.553	29.863	1.00	26.75	A	C
ATOM	2470	CB	ALA	A	350	-23.459	58.138	30.330	1.00	27.09	A	C

Figure 1

ATOM	2471	C	ALA	A	350	-22.305	60.297	30.203	1.00	26.95	A	C
ATOM	2472	O	ALA	A	350	-22.284	61.088	31.144	1.00	25.94	A	O
ATOM	2473	N	VAL	A	351	-21.243	60.039	29.447	1.00	26.06	A	N
ATOM	2474	CA	VAL	A	351	-19.983	60.699	29.720	1.00	24.87	A	C
ATOM	2475	CB	VAL	A	351	-18.935	60.353	28.681	1.00	25.78	A	C
ATOM	2476	CG1	VAL	A	351	-17.689	61.209	28.906	1.00	26.61	A	C
ATOM	2477	CG2	VAL	A	351	-18.583	58.886	28.789	1.00	26.54	A	C
ATOM	2478	O	VAL	A	351	-20.109	62.206	29.774	1.00	24.60	A	C
ATOM	2479	C	VAL	A	351	-19.666	62.843	30.741	1.00	24.32	A	O
ATOM	2480	N	VAL	A	352	-20.717	62.776	28.738	1.00	21.28	A	N
ATOM	2481	CA	VAL	A	352	-20.872	64.216	28.686	1.00	18.55	A	C
ATOM	2482	CB	VAL	A	352	-21.672	64.626	27.485	1.00	17.26	A	C
ATOM	2483	CG1	VAL	A	352	-21.809	66.142	27.442	1.00	13.51	A	C
ATOM	2484	CG2	VAL	A	352	-20.995	64.090	26.252	1.00	16.99	A	C
ATOM	2485	C	VAL	A	352	-21.519	64.755	29.944	1.00	18.84	A	C
ATOM	2486	O	VAL	A	352	-21.030	65.716	30.538	1.00	19.12	A	O
ATOM	2487	N	HIS	A	353	-22.618	64.144	30.360	1.00	18.05	A	N
ATOM	2488	CA	HIS	A	353	-23.272	64.582	31.583	1.00	18.26	A	C
ATOM	2489	CB	HIS	A	353	-24.474	63.699	31.882	1.00	15.92	A	C
ATOM	2490	CG	HIS	A	353	-25.655	64.011	31.033	1.00	15.03	A	C
ATOM	2491	CD2	HIS	A	353	-25.869	63.827	29.710	1.00	16.27	A	C
ATOM	2492	ND1	HIS	A	353	-26.735	64.724	31.503	1.00	14.53	A	N
ATOM	2493	CE1	HIS	A	353	-27.556	64.976	30.501	1.00	17.38	A	C
ATOM	2494	NE2	HIS	A	353	-27.052	64.445	29.400	1.00	16.37	A	N
ATOM	2495	C	HIS	A	353	-22.279	64.503	32.734	1.00	20.12	A	C
ATOM	2496	O	HIS	A	353	-22.063	65.487	33.439	1.00	20.35	A	O
ATOM	2497	N	GLU	A	354	-21.655	63.331	32.893	1.00	21.58	A	N
ATOM	2498	CA	GLU	A	354	-20.682	63.093	33.968	1.00	22.01	A	C
ATOM	2499	CB	GLU	A	354	-20.084	61.663	33.889	1.00	22.14	A	C
ATOM	2500	CG	GLU	A	354	-19.168	61.230	35.086	1.00	20.91	A	C
ATOM	2501	CD	GLU	A	354	-19.850	61.364	36.428	1.00	22.70	A	C
ATOM	2502	OE1	GLU	A	354	-21.046	61.652	36.404	1.00	25.54	A	O
ATOM	2503	OE2	GLU	A	354	-19.218	61.191	37.503	1.00	23.82	A	O
ATOM	2504	C	GLU	A	354	-19.556	64.120	34.015	1.00	22.30	A	C
ATOM	2505	O	GLU	A	354	-19.048	64.420	35.100	1.00	23.86	A	O
ATOM	2506	N	VAL	A	355	-19.159	64.657	32.864	1.00	20.22	A	N
ATOM	2507	CA	VAL	A	355	-18.109	65.666	32.859	1.00	20.12	A	C
ATOM	2508	CB	VAL	A	355	-17.629	65.953	31.430	1.00	19.23	A	C
ATOM	2509	CG1	VAL	A	355	-16.570	67.026	31.458	1.00	20.32	A	C
ATOM	2510	CG2	VAL	A	355	-17.084	64.687	30.824	1.00	18.88	A	C
ATOM	2511	C	VAL	A	355	-18.689	66.942	33.505	1.00	19.51	A	C
ATOM	2512	O	VAL	A	355	-18.198	67.429	34.525	1.00	18.69	A	O
ATOM	2513	N	GLN	A	356	-19.765	67.448	32.925	1.00	18.09	A	N
ATOM	2514	CA	GLN	A	356	-20.411	68.615	33.459	1.00	18.35	A	C
ATOM	2515	CB	GLN	A	356	-21.747	68.834	32.752	1.00	18.58	A	C
ATOM	2516	CG	GLN	A	356	-21.556	69.163	31.290	1.00	18.28	A	C
ATOM	2517	CD	GLN	A	356	-22.723	69.873	30.686	1.00	19.53	A	C
ATOM	2518	OE1	GLN	A	356	-23.478	69.290	29.924	1.00	22.44	A	O
ATOM	2519	NE2	GLN	A	356	-22.878	71.146	31.013	1.00	16.13	A	N
ATOM	2520	C	GLN	A	356	-20.632	68.528	34.969	1.00	18.52	A	C
ATOM	2521	O	GLN	A	356	-20.402	69.496	35.687	1.00	19.07	A	O
ATOM	2522	N	ARG	A	357	-21.073	67.372	35.450	1.00	18.88	A	N
ATOM	2523	CA	ARG	A	357	-21.336	67.185	36.872	1.00	20.61	A	C
ATOM	2524	CB	ARG	A	357	-22.145	65.906	37.105	1.00	20.39	A	C
ATOM	2525	CG	ARG	A	357	-22.581	65.727	38.558	1.00	18.60	A	C
ATOM	2526	CD	ARG	A	357	-22.658	64.282	38.926	1.00	16.56	A	C
ATOM	2527	NE	ARG	A	357	-21.339	63.655	38.923	1.00	19.70	A	N
ATOM	2528	CZ	ARG	A	357	-20.503	63.630	39.958	1.00	21.07	A	C
ATOM	2529	NH1	ARG	A	357	-19.320	63.027	39.837	1.00	18.02	A	N
ATOM	2530	NH2	ARG	A	357	-20.855	64.199	41.108	1.00	22.37	A	N
ATOM	2531	C	ARG	A	357	-20.077	67.097	37.704	1.00	22.06	A	C
ATOM	2532	O	ARG	A	357	-20.029	67.582	38.828	1.00	22.77	A	O
ATOM	2533	N	TYR	A	358	-19.067	66.447	37.149	1.00	23.97	A	N
ATOM	2534	CA	TYR	A	358	-17.822	66.257	37.857	1.00	25.69	A	C
ATOM	2535	CB	TYR	A	358	-16.987	65.179	37.158	1.00	25.51	A	C
ATOM	2536	CG	TYR	A	358	-15.600	65.014	37.727	1.00	27.13	A	C
ATOM	2537	CD1	TYR	A	358	-14.528	65.704	37.181	1.00	28.47	A	C
ATOM	2538	CE1	TYR	A	358	-13.252	65.576	37.697	1.00	28.33	A	C
ATOM	2539	CD2	TYR	A	358	-15.358	64.186	38.815	1.00	27.13	A	C
ATOM	2540	CE2	TYR	A	358	-14.076	64.052	39.343	1.00	27.59	A	C
ATOM	2541	CZ	TYR	A	358	-13.034	64.753	38.775	1.00	28.41	A	C
ATOM	2542	OH	TYR	A	358	-11.760	64.649	39.280	1.00	31.05	A	O
ATOM	2543	C	TYR	A	358	-17.048	67.549	37.975	1.00	25.71	A	C
ATOM	2544	O	TYR	A	358	-16.709	67.977	39.076	1.00	26.05	A	O
ATOM	2545	N	ILE	A	359	-16.811	68.194	36.839	1.00	25.69	A	N

Figure 1

ATOM	2546	CA	ILE	A	359	-16.030	69.423	36.822	1.00	25.38	A	C
ATOM	2547	CB	ILE	A	359	-15.702	69.850	35.401	1.00	24.89	A	C
ATOM	2548	CG2	ILE	A	359	-15.209	68.642	34.641	1.00	26.83	A	C
ATOM	2549	CG1	ILE	A	359	-16.920	70.507	34.735	1.00	24.77	A	C
ATOM	2550	CD1	ILE	A	359	-16.673	70.941	33.278	1.00	21.25	A	C
ATOM	2551	C	ILE	A	359	-16.648	70.591	37.539	1.00	25.68	A	C
ATOM	2552	O	ILE	A	359	-15.960	71.410	38.133	1.00	27.67	A	O
ATOM	2553	N	ASP	A	360	-17.955	70.695	37.471	1.00	25.88	A	N
ATOM	2554	CA	ASP	A	360	-18.615	71.783	38.152	1.00	24.83	A	C
ATOM	2555	CB	ASP	A	360	-18.676	71.472	39.624	1.00	25.20	A	C
ATOM	2556	CG	ASP	A	360	-19.372	72.543	40.371	1.00	29.82	A	C
ATOM	2557	OD1	ASP	A	360	-19.341	72.532	41.632	1.00	29.12	A	O
ATOM	2558	OD2	ASP	A	360	-19.953	73.412	39.662	1.00	29.97	A	O
ATOM	2559	C	ASP	A	360	-17.942	73.141	37.945	1.00	22.66	A	C
ATOM	2560	O	ASP	A	360	-17.342	73.683	38.852	1.00	24.04	A	O
ATOM	2561	N	LEU	A	361	-18.082	73.687	36.745	1.00	22.58	A	N
ATOM	2562	CA	LEU	A	361	-17.496	74.964	36.350	1.00	20.37	A	C
ATOM	2563	CB	LEU	A	361	-17.687	75.132	34.850	1.00	16.71	A	C
ATOM	2564	CG	LEU	A	361	-16.424	74.804	34.042	1.00	18.53	A	C
ATOM	2565	CD1	LEU	A	361	-15.647	73.690	34.725	1.00	16.78	A	C
ATOM	2566	CD2	LEU	A	361	-16.778	74.471	32.589	1.00	16.10	A	C
ATOM	2567	C	LEU	A	361	-17.928	76.241	37.069	1.00	20.79	A	C
ATOM	2568	O	LEU	A	361	-17.144	77.167	37.180	1.00	22.24	A	O
ATOM	2569	N	LEU	A	362	-19.174	76.291	37.523	1.00	21.92	A	N
ATOM	2570	CA	LEU	A	362	-19.727	77.435	38.238	1.00	22.97	A	C
ATOM	2571	CB	LEU	A	362	-20.890	78.039	37.455	1.00	21.35	A	C
ATOM	2572	CG	LEU	A	362	-20.575	78.660	36.105	1.00	20.42	A	C
ATOM	2573	CD1	LEU	A	362	-19.106	78.928	36.044	1.00	23.19	A	C
ATOM	2574	CD2	LEU	A	362	-20.958	77.729	34.985	1.00	22.71	A	C
ATOM	2575	C	LEU	A	362	-20.263	76.979	39.606	1.00	25.55	A	C
ATOM	2576	O	LEU	A	362	-21.470	77.047	39.847	1.00	25.88	A	O
ATOM	2577	N	PRO	A	363	-19.377	76.528	40.520	1.00	26.02	A	N
ATOM	2578	CD	PRO	A	363	-17.912	76.635	40.484	1.00	26.25	A	C
ATOM	2579	CA	PRO	A	363	-19.813	76.069	41.839	1.00	26.66	A	C
ATOM	2580	CB	PRO	A	363	-18.520	76.054	42.649	1.00	26.82	A	C
ATOM	2581	CG	PRO	A	363	-17.612	76.992	41.904	1.00	27.65	A	C
ATOM	2582	C	PRO	A	363	-20.933	76.878	42.490	1.00	27.85	A	C
ATOM	2583	O	PRO	A	363	-21.547	76.441	43.473	1.00	27.91	A	O
ATOM	2584	N	THR	A	364	-21.172	78.070	41.960	1.00	29.09	A	N
ATOM	2585	CA	THR	A	364	-22.264	78.950	42.399	1.00	31.60	A	C
ATOM	2586	CB	THR	A	364	-21.822	79.949	43.488	1.00	31.15	A	C
ATOM	2587	OG1	THR	A	364	-20.532	80.469	43.177	1.00	34.37	A	O
ATOM	2588	CG2	THR	A	364	-21.769	79.282	44.836	1.00	31.76	A	C
ATOM	2589	C	THR	A	364	-22.571	79.692	41.111	1.00	33.11	A	C
ATOM	2590	O	THR	A	364	-21.807	80.566	40.712	1.00	38.84	A	O
ATOM	2591	N	SER	A	365	-23.645	79.336	40.419	1.00	31.72	A	N
ATOM	2592	CA	SER	A	365	-23.928	79.999	39.150	1.00	31.29	A	C
ATOM	2593	CB	SER	A	365	-25.284	79.514	38.606	1.00	30.31	A	C
ATOM	2594	OG	SER	A	365	-26.356	80.346	38.996	1.00	29.75	A	O
ATOM	2595	C	SER	A	365	-23.907	81.523	39.360	1.00	31.52	A	C
ATOM	2596	O	SER	A	365	-23.773	81.980	40.495	1.00	35.37	A	O
ATOM	2597	N	LEU	A	366	-24.024	82.317	38.301	1.00	29.61	A	N
ATOM	2598	CA	LEU	A	366	-24.022	83.776	38.463	1.00	28.76	A	C
ATOM	2599	CB	LEU	A	366	-24.446	84.465	37.149	1.00	28.55	A	C
ATOM	2600	CG	LEU	A	366	-23.663	84.124	35.868	1.00	27.30	A	C
ATOM	2601	CD1	LEU	A	366	-23.996	85.070	34.718	1.00	27.44	A	C
ATOM	2602	CD2	LEU	A	366	-22.204	84.198	36.176	1.00	27.91	A	C
ATOM	2603	C	LEU	A	366	-25.012	84.129	39.590	1.00	28.35	A	C
ATOM	2604	O	LEU	A	366	-26.017	83.442	39.744	1.00	29.01	A	O
ATOM	2605	N	PRO	A	367	-24.729	85.183	40.397	1.00	26.71	A	N
ATOM	2606	CD	PRO	A	367	-23.508	85.988	40.284	1.00	25.97	A	C
ATOM	2607	CA	PRO	A	367	-25.529	85.679	41.521	1.00	26.25	A	C
ATOM	2608	CB	PRO	A	367	-24.760	86.903	41.985	1.00	24.20	A	C
ATOM	2609	CG	PRO	A	367	-23.391	86.587	41.666	1.00	23.29	A	C
ATOM	2610	C	PRO	A	367	-26.940	86.053	41.142	1.00	27.98	A	C
ATOM	2611	O	PRO	A	367	-27.189	86.474	40.021	1.00	27.89	A	O
ATOM	2612	N	HIS	A	368	-27.853	85.916	42.098	1.00	29.89	A	N
ATOM	2613	CA	HIS	A	368	-29.256	86.242	41.898	1.00	31.37	A	C
ATOM	2614	CB	HIS	A	368	-30.128	85.008	42.172	1.00	31.05	A	C
ATOM	2615	CG	HIS	A	368	-30.040	83.932	41.121	1.00	30.63	A	C
ATOM	2616	CD2	HIS	A	368	-29.099	82.984	40.879	1.00	29.68	A	C
ATOM	2617	ND1	HIS	A	368	-31.018	83.743	40.167	1.00	30.15	A	N
ATOM	2618	CE1	HIS	A	368	-30.680	82.733	39.384	1.00	27.57	A	C
ATOM	2619	NE2	HIS	A	368	-29.521	82.254	39.794	1.00	25.29	A	N
ATOM	2620	C	HIS	A	368	-29.616	87.371	42.873	1.00	33.69	A	C

Figure 1

ATOM	2621	O	HIS	A	368	-28.752	87.912	43.563	1.00	34.02	A	O
ATOM	2622	N	ALA	A	369	-30.894	87.723	42.929	1.00	35.79	A	N
ATOM	2623	CA	ALA	A	369	-31.365	88.778	43.819	1.00	37.21	A	C
ATOM	2624	CB	ALA	A	369	-30.875	90.133	43.322	1.00	35.38	A	C
ATOM	2625	C	ALA	A	369	-32.891	88.727	43.811	1.00	39.20	A	C
ATOM	2626	O	ALA	A	369	-33.503	88.753	42.742	1.00	40.02	A	O
ATOM	2627	N	VAL	A	370	-33.506	88.633	44.988	1.00	41.55	A	N
ATOM	2628	CA	VAL	A	370	-34.969	88.588	45.064	1.00	44.82	A	C
ATOM	2629	CB	VAL	A	370	-35.455	88.325	46.496	1.00	44.24	A	C
ATOM	2630	CG1	VAL	A	370	-34.939	86.976	46.979	1.00	43.13	A	C
ATOM	2631	CG2	VAL	A	370	-34.983	89.427	47.409	1.00	44.26	A	C
ATOM	2632	C	VAL	A	370	-35.575	89.900	44.579	1.00	46.76	A	C
ATOM	2633	O	VAL	A	370	-34.945	90.945	44.679	1.00	47.48	A	O
ATOM	2634	N	THR	A	371	-36.794	89.843	44.054	1.00	49.35	A	N
ATOM	2635	CA	THR	A	371	-37.470	91.040	43.544	1.00	52.61	A	C
ATOM	2636	CB	THR	A	371	-38.089	90.777	42.177	1.00	53.22	A	C
ATOM	2637	OG1	THR	A	371	-37.765	89.441	41.761	1.00	52.18	A	O
ATOM	2638	CG2	THR	A	371	-37.594	91.815	41.159	1.00	54.60	A	C
ATOM	2639	C	THR	A	371	-38.613	91.479	44.436	1.00	54.39	A	C
ATOM	2640	O	THR	A	371	-39.418	92.322	44.054	1.00	53.90	A	O
ATOM	2641	N	CYS	A	372	-38.681	90.882	45.614	1.00	57.58	A	N
ATOM	2642	CA	CYS	A	372	-39.739	91.151	46.562	1.00	61.26	A	C
ATOM	2643	CB	CYS	A	372	-40.893	90.174	46.366	1.00	62.07	A	C
ATOM	2644	SG	CYS	A	372	-41.784	90.268	44.816	1.00	66.07	A	S
ATOM	2645	C	CYS	A	372	-39.189	90.893	47.933	1.00	63.31	A	C
ATOM	2646	O	CYS	A	372	-38.034	90.507	48.088	1.00	64.75	A	O
ATOM	2647	N	ASP	A	373	-40.037	91.062	48.933	1.00	64.45	A	N
ATOM	2648	CA	ASP	A	373	-39.601	90.804	50.281	1.00	65.63	A	C
ATOM	2649	CB	ASP	A	373	-40.192	91.832	51.230	1.00	66.44	A	C
ATOM	2650	CG	ASP	A	373	-39.449	93.130	51.184	1.00	67.17	A	C
ATOM	2651	OD1	ASP	A	373	-39.015	93.508	50.079	1.00	67.20	A	O
ATOM	2652	OD2	ASP	A	373	-39.294	93.769	52.245	1.00	69.25	A	O
ATOM	2653	C	ASP	A	373	-40.024	89.413	50.684	1.00	65.78	A	C
ATOM	2654	O	ASP	A	373	-40.512	89.209	51.793	1.00	67.57	A	O
ATOM	2655	N	ILE	A	374	-39.820	88.446	49.797	1.00	64.68	A	N
ATOM	2656	CA	ILE	A	374	-40.209	87.078	50.107	1.00	64.44	A	C
ATOM	2657	CB	ILE	A	374	-39.773	86.096	48.987	1.00	62.54	A	C
ATOM	2658	CG2	ILE	A	374	-40.358	86.523	47.669	1.00	62.77	A	C
ATOM	2659	CG1	ILE	A	374	-38.257	86.074	48.846	1.00	61.31	A	C
ATOM	2660	CD1	ILE	A	374	-37.582	85.110	49.753	1.00	61.00	A	C
ATOM	2661	C	ILE	A	374	-39.639	86.594	51.442	1.00	65.35	A	C
ATOM	2662	O	ILE	A	374	-38.630	87.110	51.933	1.00	65.09	A	O
ATOM	2663	N	LYS	A	375	-40.320	85.620	52.037	1.00	65.89	A	N
ATOM	2664	CA	LYS	A	375	-39.882	85.032	53.293	1.00	66.45	A	C
ATOM	2665	CB	LYS	A	375	-40.947	85.182	54.391	1.00	67.20	A	C
ATOM	2666	GG	LYS	A	375	-42.383	84.963	53.927	1.00	69.15	A	C
ATOM	2667	CD	LYS	A	375	-42.899	86.154	53.111	1.00	70.92	A	C
ATOM	2668	CE	LYS	A	375	-43.100	87.389	54.007	1.00	72.48	A	C
ATOM	2669	NZ	LYS	A	375	-43.509	88.634	53.269	1.00	72.49	A	N
ATOM	2670	C	LYS	A	375	-39.599	83.562	53.041	1.00	66.05	A	C
ATOM	2671	O	LYS	A	375	-40.356	82.687	53.439	1.00	68.24	A	O
ATOM	2672	N	PHE	A	376	-38.503	83.294	52.358	1.00	64.23	A	N
ATOM	2673	CA	PHE	A	376	-38.137	81.930	52.057	1.00	62.63	A	C
ATOM	2674	CB	PHE	A	376	-36.793	81.918	51.352	1.00	59.42	A	C
ATOM	2675	CG	PHE	A	376	-36.400	80.586	50.843	1.00	55.85	A	C
ATOM	2676	CD1	PHE	A	376	-37.135	79.970	49.844	1.00	55.27	A	C
ATOM	2677	CD2	PHE	A	376	-35.291	79.944	51.359	1.00	54.53	A	C
ATOM	2678	CE1	PHE	A	376	-36.766	78.728	49.368	1.00	55.27	A	C
ATOM	2679	CE2	PHE	A	376	-34.914	78.716	50.896	1.00	53.88	A	C
ATOM	2680	CZ	PHE	A	376	-35.649	78.100	49.898	1.00	55.99	A	C
ATOM	2681	C	PHE	A	376	-38.062	81.091	53.329	1.00	63.77	A	C
ATOM	2682	O	PHE	A	376	-37.437	81.497	54.312	1.00	63.38	A	O
ATOM	2683	N	ARG	A	377	-38.693	79.918	53.300	1.00	65.04	A	N
ATOM	2684	CA	ARG	A	377	-38.701	79.024	54.451	1.00	65.51	A	C
ATOM	2685	CB	ARG	A	377	-37.270	78.646	54.825	1.00	63.50	A	C
ATOM	2686	CG	ARG	A	377	-36.596	77.687	53.848	1.00	61.32	A	C
ATOM	2687	CD	ARG	A	377	-36.948	76.263	54.207	1.00	58.82	A	C
ATOM	2688	NE	ARG	A	377	-35.901	75.282	53.938	1.00	55.06	A	N
ATOM	2689	CZ	ARG	A	377	-35.612	74.810	52.733	1.00	53.84	A	C
ATOM	2690	NH1	ARG	A	377	-36.286	75.237	51.679	1.00	54.33	A	N
ATOM	2691	NH2	ARG	A	377	-34.674	73.888	52.585	1.00	53.97	A	N
ATOM	2692	C	ARG	A	377	-39.394	79.721	55.615	1.00	67.10	A	C
ATOM	2693	O	ARG	A	377	-40.573	79.486	55.885	1.00	68.79	A	O
ATOM	2694	N	ASN	A	378	-38.668	80.586	56.305	1.00	67.34	A	N
ATOM	2695	CA	ASN	A	378	-39.257	81.310	57.413	1.00	67.66	A	C

Figure 1

ATOM	2696	CB	ASN	A	378	-39.658	80.331	58.517	1.00	68.64	A	C
ATOM	2697	CG	ASN	A	378	-40.937	80.749	59.230	1.00	70.93	A	C
ATOM	2698	OD1	ASN	A	378	-40.946	80.929	60.455	1.00	72.31	A	O
ATOM	2699	ND2	ASN	A	378	-42.026	80.902	58.468	1.00	70.66	A	N
ATOM	2700	C	ASN	A	378	-38.236	82.314	57.924	1.00	67.57	A	C
ATOM	2701	O	ASN	A	378	-38.225	82.663	59.105	1.00	67.52	A	O
ATOM	2702	N	TYR	A	379	-37.379	82.778	57.016	1.00	67.16	A	N
ATOM	2703	CA	TYR	A	379	-36.328	83.723	57.363	1.00	65.23	A	C
ATOM	2704	CB	TYR	A	379	-34.982	83.170	56.932	1.00	64.54	A	C
ATOM	2705	CG	TYR	A	379	-34.532	82.012	57.777	1.00	64.45	A	C
ATOM	2706	CD1	TYR	A	379	-34.108	82.212	59.079	1.00	64.40	A	C
ATOM	2707	CE1	TYR	A	379	-33.692	81.158	59.870	1.00	64.90	A	C
ATOM	2708	CD2	TYR	A	379	-34.535	80.714	57.277	1.00	64.82	A	C
ATOM	2709	CE2	TYR	A	379	-34.121	79.645	58.063	1.00	65.18	A	C
ATOM	2710	CZ	TYR	A	379	-33.699	79.877	59.362	1.00	65.33	A	C
ATOM	2711	OH	TYR	A	379	-33.281	78.831	60.162	1.00	66.76	A	O
ATOM	2712	C	TYR	A	379	-36.519	85.127	56.811	1.00	65.32	A	C
ATOM	2713	O	TYR	A	379	-35.795	86.050	57.198	1.00	66.83	A	O
ATOM	2714	N	LEU	A	380	-37.477	85.293	55.903	1.00	63.55	A	N
ATOM	2715	CA	LEU	A	380	-37.775	86.616	55.355	1.00	61.98	A	C
ATOM	2716	CB	LEU	A	380	-38.416	87.482	56.440	1.00	61.61	A	C
ATOM	2717	CG	LEU	A	380	-38.699	88.959	56.192	1.00	61.77	A	C
ATOM	2718	CD1	LEU	A	380	-39.576	89.161	54.957	1.00	62.33	A	C
ATOM	2719	CD2	LEU	A	380	-39.383	89.499	57.427	1.00	62.30	A	C
ATOM	2720	C	LEU	A	380	-36.579	87.366	54.777	1.00	61.24	A	C
ATOM	2721	O	LEU	A	380	-35.835	88.029	55.505	1.00	61.52	A	O
ATOM	2722	N	ILE	A	381	-36.415	87.275	53.460	1.00	60.09	A	N
ATOM	2723	CA	ILE	A	381	-35.331	87.952	52.770	1.00	57.67	A	C
ATOM	2724	CB	ILE	A	381	-34.674	87.052	51.718	1.00	57.13	A	C
ATOM	2725	CG2	ILE	A	381	-33.376	87.693	51.242	1.00	56.08	A	C
ATOM	2726	CG1	ILE	A	381	-34.419	85.662	52.300	1.00	56.63	A	C
ATOM	2727	CD1	ILE	A	381	-33.917	84.653	51.283	1.00	56.68	A	C
ATOM	2728	C	ILE	A	381	-35.898	89.170	52.054	1.00	56.74	A	C
ATOM	2729	O	ILE	A	381	-36.803	89.049	51.218	1.00	55.80	A	O
ATOM	2730	N	PRO	A	382	-35.371	90.366	52.380	1.00	55.87	A	N
ATOM	2731	CD	PRO	A	382	-34.321	90.580	53.391	1.00	54.93	A	C
ATOM	2732	CA	PRO	A	382	-35.790	91.644	51.795	1.00	54.53	A	C
ATOM	2733	CB	PRO	A	382	-35.048	92.664	52.644	1.00	53.78	A	C
ATOM	2734	CG	PRO	A	382	-33.810	91.933	53.023	1.00	54.61	A	C
ATOM	2735	C	PRO	A	382	-35.483	91.786	50.304	1.00	54.13	A	C
ATOM	2736	O	PRO	A	382	-34.531	91.203	49.783	1.00	53.18	A	O
ATOM	2737	N	LYS	A	383	-36.312	92.567	49.621	1.00	54.37	A	N
ATOM	2738	CA	LYS	A	383	-36.148	92.787	48.191	1.00	54.48	A	C
ATOM	2739	CB	LYS	A	383	-37.227	93.732	47.668	1.00	56.00	A	C
ATOM	2740	CG	LYS	A	383	-37.094	94.040	46.183	1.00	59.08	A	C
ATOM	2741	CD	LYS	A	383	-38.123	95.055	45.710	1.00	61.92	A	C
ATOM	2742	CE	LYS	A	383	-37.968	96.381	46.449	1.00	64.65	A	C
ATOM	2743	NZ	LYS	A	383	-38.959	97.420	46.017	1.00	67.40	A	N
ATOM	2744	C	LYS	A	383	-34.783	93.344	47.833	1.00	52.99	A	C
ATOM	2745	O	LYS	A	383	-34.230	94.165	48.555	1.00	54.31	A	O
ATOM	2746	N	GLY	A	384	-34.246	92.885	46.709	1.00	51.34	A	N
ATOM	2747	CA	GLY	A	384	-32.953	93.356	46.261	1.00	49.14	A	C
ATOM	2748	C	GLY	A	384	-31.762	92.581	46.791	1.00	48.48	A	C
ATOM	2749	O	GLY	A	384	-30.678	92.670	46.213	1.00	49.09	A	O
ATOM	2750	N	THR	A	385	-31.951	91.822	47.873	1.00	47.00	A	N
ATOM	2751	CA	THR	A	385	-30.869	91.034	48.487	1.00	44.87	A	C
ATOM	2752	CB	THR	A	385	-31.363	90.197	49.685	1.00	45.93	A	C
ATOM	2753	OG1	THR	A	385	-32.150	91.009	50.557	1.00	47.57	A	O
ATOM	2754	CG2	THR	A	385	-30.165	89.630	50.457	1.00	46.50	A	C
ATOM	2755	C	THR	A	385	-30.207	90.044	47.535	1.00	42.49	A	C
ATOM	2756	O	THR	A	385	-30.877	89.241	46.888	1.00	41.81	A	O
ATOM	2757	N	THR	A	386	-28.883	90.079	47.473	1.00	39.80	A	N
ATOM	2758	CA	THR	A	386	-28.180	89.157	46.602	1.00	37.10	A	C
ATOM	2759	CB	THR	A	386	-26.721	89.561	46.451	1.00	37.22	A	C
ATOM	2760	OG1	THR	A	386	-26.639	90.646	45.516	1.00	38.65	A	O
ATOM	2761	CG2	THR	A	386	-25.898	88.404	45.948	1.00	36.65	A	C
ATOM	2762	C	THR	A	386	-28.281	87.712	47.070	1.00	34.29	A	C
ATOM	2763	O	THR	A	386	-28.170	87.413	48.251	1.00	33.82	A	O
ATOM	2764	N	ILE	A	387	-28.497	86.814	46.120	1.00	32.63	A	N
ATOM	2765	CA	ILE	A	387	-28.645	85.410	46.442	1.00	30.30	A	C
ATOM	2766	CB	ILE	A	387	-30.031	84.897	46.055	1.00	29.55	A	C
ATOM	2767	CG2	ILE	A	387	-30.150	83.442	46.435	1.00	28.60	A	C
ATOM	2768	CG1	ILE	A	387	-31.111	85.741	46.721	1.00	30.52	A	C
ATOM	2769	CD1	ILE	A	387	-31.054	85.721	48.221	1.00	29.87	A	C
ATOM	2770	C	ILE	A	387	-27.665	84.578	45.675	1.00	29.54	A	C

Figure 1

ATOM	2771	O	ILE	A	387	-27.646	84.635	44.448	1.00	30.48	A	O
ATOM	2772	N	LEU	A	388	-26.844	83.804	46.369	1.00	28.10	A	N
ATOM	2773	CA	LEU	A	388	-25.933	82.958	45.629	1.00	28.73	A	C
ATOM	2774	CB	LEU	A	388	-24.475	83.315	45.938	1.00	27.75	A	C
ATOM	2775	CG	LEU	A	388	-23.673	82.687	47.049	1.00	30.91	A	C
ATOM	2776	CD1	LEU	A	388	-23.533	81.208	46.760	1.00	31.57	A	C
ATOM	2777	CD2	LEU	A	388	-22.280	83.348	47.110	1.00	30.66	A	C
ATOM	2778	C	LEU	A	388	-26.313	81.508	45.925	1.00	28.56	A	C
ATOM	2779	O	LEU	A	388	-26.479	81.107	47.082	1.00	28.77	A	O
ATOM	2780	N	ILE	A	389	-26.532	80.756	44.849	1.00	27.53	A	N
ATOM	2781	CA	ILE	A	389	-26.951	79.366	44.932	1.00	27.30	A	C
ATOM	2782	CB	ILE	A	389	-28.098	79.060	43.947	1.00	29.70	A	C
ATOM	2783	CG2	ILE	A	389	-29.355	79.865	44.301	1.00	28.10	A	C
ATOM	2784	CG1	ILE	A	389	-27.694	79.472	42.550	1.00	30.35	A	C
ATOM	2785	CD1	ILE	A	389	-28.841	79.399	41.611	1.00	35.27	A	C
ATOM	2786	C	ILE	A	389	-25.835	78.391	44.648	1.00	26.15	A	C
ATOM	2787	O	ILE	A	389	-25.082	78.543	43.707	1.00	27.24	A	O
ATOM	2788	N	SER	A	390	-25.742	77.370	45.482	1.00	27.13	A	N
ATOM	2789	CA	SER	A	390	-24.705	76.379	45.324	1.00	26.28	A	C
ATOM	2790	CB	SER	A	390	-24.347	75.763	46.661	1.00	24.70	A	C
ATOM	2791	CG	SER	A	390	-23.428	74.707	46.457	1.00	27.02	A	O
ATOM	2792	C	SER	A	390	-25.098	75.273	44.364	1.00	25.78	A	C
ATOM	2793	O	SER	A	390	-25.940	74.439	44.673	1.00	27.07	A	O
ATOM	2794	N	LEU	A	391	-24.482	75.272	43.192	1.00	24.11	A	N
ATOM	2795	CA	LEU	A	391	-24.762	74.239	42.227	1.00	23.14	A	C
ATOM	2796	CB	LEU	A	391	-24.312	74.664	40.841	1.00	19.67	A	C
ATOM	2797	CG	LEU	A	391	-25.009	75.883	40.275	1.00	17.20	A	C
ATOM	2798	CD1	LEU	A	391	-24.983	75.809	38.773	1.00	14.78	A	C
ATOM	2799	CD2	LEU	A	391	-26.432	75.948	40.777	1.00	17.48	A	C
ATOM	2800	C	LEU	A	391	-23.994	73.000	42.652	1.00	24.16	A	C
ATOM	2801	O	LEU	A	391	-24.503	71.888	42.595	1.00	25.84	A	O
ATOM	2802	N	THR	A	392	-22.758	73.194	43.073	1.00	23.62	A	N
ATOM	2803	CA	THR	A	392	-21.965	72.074	43.493	1.00	24.60	A	C
ATOM	2804	CB	THR	A	392	-20.612	72.517	44.029	1.00	26.21	A	C
ATOM	2805	OG1	THR	A	392	-20.162	71.559	44.994	1.00	30.28	A	O
ATOM	2806	CG2	THR	A	392	-20.706	73.886	44.662	1.00	26.59	A	C
ATOM	2807	C	THR	A	392	-22.656	71.267	44.567	1.00	23.90	A	C
ATOM	2808	O	THR	A	392	-22.415	70.070	44.697	1.00	23.26	A	O
ATOM	2809	N	SER	A	393	-23.515	71.906	45.345	1.00	24.33	A	N
ATOM	2810	CA	SER	A	393	-24.192	71.173	46.402	1.00	25.79	A	C
ATOM	2811	CB	SER	A	393	-24.950	72.119	47.315	1.00	23.75	A	C
ATOM	2812	OG	SER	A	393	-26.053	72.631	46.609	1.00	24.10	A	O
ATOM	2813	C	SER	A	393	-25.178	70.216	45.757	1.00	26.70	A	C
ATOM	2814	O	SER	A	393	-25.584	69.214	46.344	1.00	29.91	A	O
ATOM	2815	N	VAL	A	394	-25.582	70.541	44.545	1.00	25.79	A	N
ATOM	2816	CA	VAL	A	394	-26.502	69.683	43.852	1.00	25.26	A	C
ATOM	2817	CB	VAL	A	394	-27.496	70.507	43.043	1.00	25.72	A	C
ATOM	2818	CG1	VAL	A	394	-28.370	69.596	42.208	1.00	24.22	A	C
ATOM	2819	CG2	VAL	A	394	-28.338	71.353	43.995	1.00	23.12	A	C
ATOM	2820	C	VAL	A	394	-25.697	68.756	42.949	1.00	26.36	A	C
ATOM	2821	O	VAL	A	394	-25.794	67.539	43.067	1.00	27.11	A	O
ATOM	2822	N	LEU	A	395	-24.884	69.330	42.067	1.00	26.31	A	N
ATOM	2823	CA	LEU	A	395	-24.078	68.527	41.166	1.00	26.40	A	C
ATOM	2824	CB	LEU	A	395	-23.145	69.417	40.341	1.00	25.71	A	C
ATOM	2825	CG	LEU	A	395	-23.601	69.802	38.920	1.00	26.08	A	C
ATOM	2826	CD1	LEU	A	395	-24.806	70.715	38.902	1.00	23.15	A	C
ATOM	2827	CD2	LEU	A	395	-22.443	70.488	38.256	1.00	25.01	A	C
ATOM	2828	C	LEU	A	395	-23.277	67.488	41.937	1.00	27.26	A	C
ATOM	2829	O	LEU	A	395	-22.830	66.484	41.378	1.00	27.40	A	O
ATOM	2830	N	HIS	A	396	-23.102	67.710	43.230	1.00	27.29	A	N
ATOM	2831	CA	HIS	A	396	-22.351	66.749	44.010	1.00	27.55	A	C
ATOM	2832	CB	HIS	A	396	-21.073	67.372	44.506	1.00	25.20	A	C
ATOM	2833	CG	HIS	A	396	-20.050	67.531	43.436	1.00	23.32	A	C
ATOM	2834	CD2	HIS	A	396	-20.100	68.159	42.238	1.00	21.94	A	C
ATOM	2835	ND1	HIS	A	396	-18.811	66.943	43.515	1.00	23.38	A	N
ATOM	2836	CE1	HIS	A	396	-18.138	67.199	42.405	1.00	23.24	A	C
ATOM	2837	NE2	HIS	A	396	-18.899	67.932	41.614	1.00	20.91	A	N
ATOM	2838	C	HIS	A	396	-23.111	66.193	45.160	1.00	29.82	A	C
ATOM	2839	O	HIS	A	396	-22.514	65.801	46.162	1.00	30.11	A	O
ATOM	2840	N	ASP	A	397	-24.430	66.138	45.021	1.00	31.84	A	N
ATOM	2841	CA	ASP	A	397	-25.223	65.611	46.104	1.00	34.60	A	C
ATOM	2842	CB	ASP	A	397	-26.704	65.612	45.779	1.00	36.60	A	C
ATOM	2843	CG	ASP	A	397	-27.524	64.986	46.889	1.00	40.95	A	C
ATOM	2844	OD1	ASP	A	397	-27.385	63.758	47.088	1.00	43.36	A	O
ATOM	2845	OD2	ASP	A	397	-28.285	65.712	47.580	1.00	42.73	A	O

Figure 1

ATOM	2846	C	ASP	A	397	-24.753	64.212	46.446	1.00	37.10	A	C
ATOM	2847	O	ASP	A	397	-24.579	63.353	45.586	1.00	37.38	A	O
ATOM	2848	N	ASN	A	398	-24.551	63.998	47.733	1.00	40.38	A	N
ATOM	2849	CA	ASN	A	398	-24.040	62.746	48.238	1.00	42.71	A	C
ATOM	2850	CB	ASN	A	398	-23.845	62.850	49.729	1.00	45.67	A	C
ATOM	2851	CG	ASN	A	398	-22.637	62.126	50.162	1.00	48.59	A	C
ATOM	2852	OD1	ASN	A	398	-22.345	61.043	49.638	1.00	51.96	A	O
ATOM	2853	ND2	ASN	A	398	-21.896	62.704	51.106	1.00	50.01	A	N
ATOM	2854	C	ASN	A	398	-24.819	61.492	47.971	1.00	43.00	A	C
ATOM	2855	O	ASN	A	398	-24.237	60.429	47.787	1.00	44.07	A	O
ATOM	2856	N	LYS	A	399	-26.136	61.609	47.991	1.00	43.47	A	N
ATOM	2857	CA	LYS	A	399	-27.004	60.467	47.778	1.00	44.09	A	C
ATOM	2858	CB	LYS	A	399	-28.324	60.671	48.511	1.00	45.90	A	C
ATOM	2859	CG	LYS	A	399	-28.285	60.384	49.983	1.00	48.97	A	C
ATOM	2860	CD	LYS	A	399	-29.702	60.314	50.532	1.00	54.83	A	C
ATOM	2861	CE	LYS	A	399	-30.354	61.700	50.704	1.00	58.21	A	C
ATOM	2862	NZ	LYS	A	399	-30.522	62.515	49.449	1.00	59.71	A	N
ATOM	2863	C	LYS	A	399	-27.295	60.181	46.317	1.00	43.59	A	C
ATOM	2864	O	LYS	A	399	-27.253	59.033	45.901	1.00	44.72	A	O
ATOM	2865	N	GLU	A	400	-27.610	61.216	45.543	1.00	42.23	A	N
ATOM	2866	CA	GLU	A	400	-27.903	61.027	44.126	1.00	40.78	A	C
ATOM	2867	CB	GLU	A	400	-28.369	62.328	43.490	1.00	40.94	A	C
ATOM	2868	CG	GLU	A	400	-28.724	62.187	42.026	1.00	43.63	A	C
ATOM	2869	CD	GLU	A	400	-30.085	61.571	41.809	1.00	45.59	A	C
ATOM	2870	OE1	GLU	A	400	-30.562	61.549	40.648	1.00	46.73	A	O
ATOM	2871	OE2	GLU	A	400	-30.683	61.112	42.803	1.00	46.25	A	O
ATOM	2872	C	GLU	A	400	-26.678	60.532	43.382	1.00	39.57	A	C
ATOM	2873	O	GLU	A	400	-26.794	59.888	42.341	1.00	39.03	A	O
ATOM	2874	N	PHE	A	401	-25.505	60.846	43.922	1.00	38.29	A	N
ATOM	2875	CA	PHE	A	401	-24.254	60.448	43.308	1.00	38.21	A	C
ATOM	2876	CB	PHE	A	401	-23.623	61.628	42.571	1.00	34.63	A	C
ATOM	2877	CG	PHE	A	401	-24.516	62.241	41.530	1.00	28.85	A	C
ATOM	2878	CD1	PHE	A	401	-25.199	63.425	41.788	1.00	27.04	A	C
ATOM	2879	CD2	PHE	A	401	-24.690	61.623	40.301	1.00	25.71	A	C
ATOM	2880	CE1	PHE	A	401	-26.041	63.977	40.833	1.00	24.62	A	C
ATOM	2881	CE2	PHE	A	401	-25.526	62.168	39.351	1.00	24.17	A	C
ATOM	2882	CZ	PHE	A	401	-26.203	63.346	39.616	1.00	23.08	A	C
ATOM	2883	C	PHE	A	401	-23.284	59.930	44.336	1.00	40.57	A	C
ATOM	2884	O	PHE	A	401	-22.469	60.683	44.852	1.00	42.37	A	O
ATOM	2885	N	PRO	A	402	-23.344	58.623	44.628	1.00	43.09	A	N
ATOM	2886	CD	PRO	A	402	-24.183	57.683	43.876	1.00	43.30	A	C
ATOM	2887	CA	PRO	A	402	-22.529	57.880	45.586	1.00	45.06	A	C
ATOM	2888	CB	PRO	A	402	-22.567	56.487	45.023	1.00	43.73	A	C
ATOM	2889	CG	PRO	A	402	-24.002	56.400	44.656	1.00	43.34	A	C
ATOM	2890	C	PRO	A	402	-21.120	58.368	45.903	1.00	47.45	A	C
ATOM	2891	O	PRO	A	402	-20.741	58.439	47.074	1.00	50.99	A	O
ATOM	2892	N	ASN	A	403	-20.322	58.686	44.901	1.00	47.48	A	N
ATOM	2893	CA	ASN	A	403	-18.997	59.204	45.199	1.00	48.17	A	C
ATOM	2894	CB	ASN	A	403	-17.928	58.176	44.902	1.00	51.95	A	C
ATOM	2895	CG	ASN	A	403	-18.025	56.980	45.813	1.00	55.27	A	C
ATOM	2896	OD1	ASN	A	403	-18.066	55.834	45.347	1.00	57.13	A	O
ATOM	2897	ND2	ASN	A	403	-18.061	57.232	47.125	1.00	55.98	A	N
ATOM	2898	C	ASN	A	403	-18.825	60.398	44.325	1.00	47.70	A	C
ATOM	2899	O	ASN	A	403	-18.159	60.338	43.290	1.00	49.21	A	O
ATOM	2900	N	PRO	A	404	-19.442	61.508	44.726	1.00	45.41	A	N
ATOM	2901	CD	PRO	A	404	-20.090	61.686	46.034	1.00	44.44	A	C
ATOM	2902	CA	PRO	A	404	-19.401	62.770	44.003	1.00	44.73	A	C
ATOM	2903	CB	PRO	A	404	-19.900	63.763	45.034	1.00	46.08	A	C
ATOM	2904	CG	PRO	A	404	-20.846	62.958	45.846	1.00	45.10	A	C
ATOM	2905	C	PRO	A	404	-18.048	63.180	43.454	1.00	44.81	A	C
ATOM	2906	O	PRO	A	404	-17.948	63.610	42.313	1.00	44.80	A	O
ATOM	2907	N	GLU	A	405	-17.009	63.063	44.268	1.00	45.08	A	N
ATOM	2908	CA	GLU	A	405	-15.688	63.481	43.845	1.00	45.94	A	C
ATOM	2909	CB	GLU	A	405	-14.770	63.618	45.053	1.00	50.24	A	C
ATOM	2910	CG	GLU	A	405	-15.337	64.520	46.163	1.00	56.29	A	C
ATOM	2911	CD	GLU	A	405	-15.917	65.818	45.627	1.00	57.58	A	C
ATOM	2912	OE1	GLU	A	405	-15.317	66.394	44.690	1.00	59.53	A	O
ATOM	2913	OE2	GLU	A	405	-16.967	66.256	46.147	1.00	57.78	A	O
ATOM	2914	C	GLU	A	405	-15.063	62.549	42.845	1.00	44.26	A	C
ATOM	2915	O	GLU	A	405	-13.907	62.715	42.472	1.00	45.69	A	O
ATOM	2916	N	MET	A	406	-15.840	61.589	42.369	1.00	15.00	A	
ATOM	2917	CA	MET	A	406	-15.259	60.614	41.453	1.00	15.00	A	
ATOM	2918	CB	MET	A	406	-15.360	59.206	42.042	1.00	15.00	A	
ATOM	2919	CG	MET	A	406	-14.525	58.997	43.295	1.00	15.00	A	
ATOM	2920	SD	MET	A	406	-12.752	59.069	42.968	1.00	15.00	A	

Figure 1

ATOM	2921	CE	MET	A	406	-12.532	57.602	41.965	1.00	15.00	A	
ATOM	2922	C	MET	A	406	-15.955	60.658	40.096	1.00	15.00	A	
ATOM	2923	O	MET	A	406	-17.175	60.729	39.943	1.00	39.21	A	
ATOM	2924	N	PHE	A	407	-15.118	60.592	39.044	1.00	36.59	A	N
ATOM	2925	CA	PHE	A	407	-15.619	60.606	37.684	1.00	33.99	A	C
ATOM	2926	CB	PHE	A	407	-14.496	60.971	36.719	1.00	31.78	A	C
ATOM	2927	CG	PHE	A	407	-14.968	61.240	35.340	1.00	29.39	A	C
ATOM	2928	CD1	PHE	A	407	-15.681	62.391	35.057	1.00	30.10	A	C
ATOM	2929	CD2	PHE	A	407	-14.744	60.329	34.326	1.00	29.45	A	C
ATOM	2930	CE1	PHE	A	407	-16.163	62.634	33.780	1.00	28.19	A	C
ATOM	2931	CE2	PHE	A	407	-15.222	60.558	33.041	1.00	26.69	A	C
ATOM	2932	CZ	PHE	A	407	-15.934	61.712	32.773	1.00	26.73	A	C
ATOM	2933	C	PHE	A	407	-16.174	59.229	37.337	1.00	33.36	A	C
ATOM	2934	O	PHE	A	407	-15.422	58.253	37.245	1.00	33.62	A	O
ATOM	2935	N	ASP	A	408	-17.489	59.148	37.146	1.00	34.15	A	N
ATOM	2936	CA	ASP	A	408	-18.120	57.872	36.817	1.00	34.39	A	C
ATOM	2937	CB	ASP	A	408	-18.463	57.115	38.099	1.00	36.91	A	C
ATOM	2938	CG	ASP	A	408	-19.033	55.738	37.827	1.00	39.65	A	C
ATOM	2939	OD1	ASP	A	408	-19.415	55.058	38.808	1.00	41.57	A	O
ATOM	2940	OD2	ASP	A	408	-19.094	55.337	36.640	1.00	40.48	A	O
ATOM	2941	C	ASP	A	408	-19.370	57.928	35.940	1.00	32.96	A	C
ATOM	2942	O	ASP	A	408	-20.465	58.205	36.432	1.00	30.59	A	O
ATOM	2943	N	PRO	A	409	-19.222	57.615	34.632	1.00	32.59	A	N
ATOM	2944	CD	PRO	A	409	-18.033	57.022	33.993	1.00	30.10	A	C
ATOM	2945	CA	PRO	A	409	-20.350	57.629	33.695	1.00	33.10	A	C
ATOM	2946	CB	PRO	A	409	-19.826	56.845	32.499	1.00	30.79	A	C
ATOM	2947	CG	PRO	A	409	-18.376	57.082	32.541	1.00	28.86	A	C
ATOM	2948	C	PRO	A	409	-21.555	56.930	34.289	1.00	34.11	A	C
ATOM	2949	O	PRO	A	409	-22.697	57.344	34.094	1.00	34.16	A	O
ATOM	2950	N	HIS	A	410	-21.305	55.855	35.017	1.00	34.36	A	N
ATOM	2951	CA	HIS	A	410	-22.418	55.125	35.569	1.00	35.21	A	C
ATOM	2952	CB	HIS	A	410	-21.922	53.865	36.277	1.00	35.58	A	C
ATOM	2953	CG	HIS	A	410	-21.285	52.888	35.342	1.00	35.15	A	C
ATOM	2954	CD2	HIS	A	410	-19.998	52.497	35.208	1.00	35.40	A	C
ATOM	2955	ND1	HIS	A	410	-21.968	52.318	34.289	1.00	35.21	A	N
ATOM	2956	CE1	HIS	A	410	-21.128	51.631	33.539	1.00	34.36	A	C
ATOM	2957	NE2	HIS	A	410	-19.924	51.726	34.074	1.00	35.70	A	N
ATOM	2958	C	HIS	A	410	-23.326	55.939	36.454	1.00	34.90	A	C
ATOM	2959	O	HIS	A	410	-24.390	55.456	36.842	1.00	36.78	A	O
ATOM	2960	N	HIS	A	411	-22.923	57.170	36.773	1.00	34.37	A	N
ATOM	2961	CA	HIS	A	411	-23.774	58.043	37.597	1.00	33.51	A	C
ATOM	2962	CB	HIS	A	411	-23.070	59.355	37.965	1.00	33.36	A	C
ATOM	2963	CG	HIS	A	411	-22.172	59.272	39.163	1.00	34.19	A	C
ATOM	2964	CD2	HIS	A	411	-20.981	59.868	39.413	1.00	34.60	A	C
ATOM	2965	ND1	HIS	A	411	-22.515	58.606	40.319	1.00	34.87	A	N
ATOM	2966	CE1	HIS	A	411	-21.577	58.796	41.233	1.00	34.81	A	C
ATOM	2967	NE2	HIS	A	411	-20.636	59.559	40.707	1.00	35.97	A	N
ATOM	2968	C	HIS	A	411	-25.027	58.386	36.775	1.00	32.36	A	C
ATOM	2969	O	HIS	A	411	-26.062	58.777	37.324	1.00	31.63	A	O
ATOM	2970	N	PHE	A	412	-24.920	58.250	35.454	1.00	30.97	A	N
ATOM	2971	CA	PHE	A	412	-26.039	58.544	34.575	1.00	31.12	A	C
ATOM	2972	CB	PHE	A	412	-25.726	59.760	33.668	1.00	27.98	A	C
ATOM	2973	CG	PHE	A	412	-25.487	61.034	34.428	1.00	23.26	A	C
ATOM	2974	CD1	PHE	A	412	-24.239	61.312	34.959	1.00	22.56	A	C
ATOM	2975	CD2	PHE	A	412	-26.534	61.914	34.687	1.00	21.86	A	C
ATOM	2976	CE1	PHE	A	412	-24.032	62.447	35.743	1.00	23.70	A	C
ATOM	2977	CE2	PHE	A	412	-26.342	63.052	35.468	1.00	21.30	A	C
ATOM	2978	CZ	PHE	A	412	-25.085	63.321	36.001	1.00	22.88	A	C
ATOM	2979	C	PHE	A	412	-26.430	57.333	33.732	1.00	33.25	A	C
ATOM	2980	O	PHE	A	412	-26.892	57.471	32.594	1.00	33.77	A	O
ATOM	2981	N	LEU	A	413	-26.235	56.143	34.293	1.00	35.15	A	N
ATOM	2982	CA	LEU	A	413	-26.606	54.893	33.626	1.00	37.01	A	C
ATOM	2983	CB	LEU	A	413	-25.400	54.237	32.949	1.00	32.56	A	C
ATOM	2984	CG	LEU	A	413	-24.789	54.961	31.749	1.00	31.71	A	C
ATOM	2985	CD1	LEU	A	413	-23.676	54.122	31.119	1.00	27.45	A	C
ATOM	2986	CD2	LEU	A	413	-25.867	55.274	30.727	1.00	30.78	A	C
ATOM	2987	C	LEU	A	413	-27.220	53.912	34.627	1.00	41.25	A	C
ATOM	2988	O	LEU	A	413	-26.792	53.828	35.795	1.00	43.43	A	O
ATOM	2989	N	ASP	A	414	-28.217	53.158	34.173	1.00	44.14	A	N
ATOM	2990	CA	ASP	A	414	-28.855	52.199	35.054	1.00	48.24	A	C
ATOM	2991	CB	ASP	A	414	-30.351	52.086	34.726	1.00	48.68	A	C
ATOM	2992	CG	ASP	A	414	-30.613	51.560	33.337	1.00	51.40	A	C
ATOM	2993	OD1	ASP	A	414	-31.758	51.704	32.849	1.00	52.91	A	O
ATOM	2994	OD2	ASP	A	414	-29.679	50.998	32.727	1.00	53.88	A	O
ATOM	2995	C	ASP	A	414	-28.144	50.848	34.973	1.00	51.52	A	C

Figure 1

ATOM	2996	O	ASP	A	414	-27.260	50.654	34.131	1.00	50.66	A	O
ATOM	2997	N	GLU	A	415	-28.506	49.928	35.872	1.00	55.28	A	N
ATOM	2998	CA	GLU	A	415	-27.890	48.597	35.910	1.00	56.26	A	C
ATOM	2999	CB	GLU	A	415	-28.523	47.753	37.023	1.00	60.24	A	C
ATOM	3000	CG	GLU	A	415	-27.677	46.550	37.518	1.00	66.98	A	C
ATOM	3001	CD	GLU	A	415	-26.355	46.952	38.218	1.00	70.27	A	C
ATOM	3002	OE1	GLU	A	415	-25.478	47.548	37.543	1.00	72.39	A	O
ATOM	3003	OE2	GLU	A	415	-26.197	46.665	39.441	1.00	71.02	A	O
ATOM	3004	C	GLU	A	415	-28.143	47.971	34.557	1.00	55.37	A	C
ATOM	3005	O	GLU	A	415	-27.287	47.280	34.005	1.00	53.76	A	O
ATOM	3006	N	GLY	A	416	-29.328	48.267	34.030	1.00	56.17	A	N
ATOM	3007	CA	GLY	A	416	-29.763	47.776	32.734	1.00	57.68	A	C
ATOM	3008	C	GLY	A	416	-28.777	48.016	31.615	1.00	57.35	A	C
ATOM	3009	O	GLY	A	416	-29.084	47.820	30.443	1.00	58.27	A	O
ATOM	3010	N	GLY	A	417	-27.578	48.437	31.972	1.00	57.30	A	N
ATOM	3011	CA	GLY	A	417	-26.586	48.659	30.952	1.00	57.49	A	C
ATOM	3012	C	GLY	A	417	-26.320	50.127	30.756	1.00	56.77	A	C
ATOM	3013	O	GLY	A	417	-25.721	50.785	31.604	1.00	57.35	A	O
ATOM	3014	N	ASN	A	418	-26.781	50.657	29.641	1.00	54.87	A	N
ATOM	3015	CA	ASN	A	418	-26.529	52.042	29.368	1.00	54.30	A	C
ATOM	3016	CB	ASN	A	418	-25.635	52.164	28.136	1.00	52.86	A	C
ATOM	3017	CG	ASN	A	418	-24.280	51.486	28.318	1.00	53.20	A	C
ATOM	3018	OD1	ASN	A	418	-23.969	50.932	29.385	1.00	53.46	A	O
ATOM	3019	ND2	ASN	A	418	-23.460	51.538	27.273	1.00	52.59	A	N
ATOM	3020	C	ASN	A	418	-27.837	52.762	29.144	1.00	55.10	A	C
ATOM	3021	O	ASN	A	418	-28.451	52.619	28.098	1.00	57.00	A	O
ATOM	3022	N	PHE	A	419	-28.290	53.524	30.128	1.00	54.14	A	N
ATOM	3023	CA	PHE	A	419	-29.529	54.245	29.943	1.00	52.23	A	C
ATOM	3024	CB	PHE	A	419	-30.703	53.360	30.340	1.00	55.91	A	C
ATOM	3025	CG	PHE	A	419	-30.849	52.138	29.490	1.00	58.64	A	C
ATOM	3026	CD1	PHE	A	419	-30.451	50.900	29.964	1.00	60.39	A	C
ATOM	3027	CD2	PHE	A	419	-31.367	52.232	28.203	1.00	60.43	A	C
ATOM	3028	CE1	PHE	A	419	-30.564	49.767	29.170	1.00	62.91	A	C
ATOM	3029	CE2	PHE	A	419	-31.483	51.107	27.402	1.00	62.07	A	C
ATOM	3030	CZ	PHE	A	419	-31.080	49.870	27.888	1.00	63.11	A	C
ATOM	3031	C	PHE	A	419	-29.545	55.539	30.732	1.00	49.46	A	C
ATOM	3032	O	PHE	A	419	-29.405	55.546	31.947	1.00	49.57	A	O
ATOM	3033	N	LYS	A	420	-29.726	56.648	30.039	1.00	46.00	A	N
ATOM	3034	CA	LYS	A	420	-29.731	57.930	30.725	1.00	43.52	A	C
ATOM	3035	CB	LYS	A	420	-30.048	59.065	29.747	1.00	36.54	A	C
ATOM	3036	CG	LYS	A	420	-28.852	59.557	28.959	1.00	29.16	A	C
ATOM	3037	CD	LYS	A	420	-27.682	60.024	29.845	1.00	23.37	A	C
ATOM	3038	CE	LYS	A	420	-28.084	60.971	30.939	1.00	17.15	A	C
ATOM	3039	NZ	LYS	A	420	-29.453	61.465	30.812	1.00	15.74	A	N
ATOM	3040	C	LYS	A	420	-30.714	58.014	31.895	1.00	44.10	A	C
ATOM	3041	O	LYS	A	420	-31.760	57.364	31.879	1.00	45.33	A	O
ATOM	3042	N	LYS	A	421	-30.376	58.835	32.890	1.00	42.46	A	N
ATOM	3043	CA	LYS	A	421	-31.237	59.035	34.028	1.00	41.92	A	C
ATOM	3044	CB	LYS	A	421	-30.711	58.193	35.190	1.00	43.82	A	C
ATOM	3045	CG	LYS	A	421	-30.543	56.691	34.850	1.00	42.14	A	C
ATOM	3046	CD	LYS	A	421	-29.704	55.962	35.891	1.00	43.52	A	C
ATOM	3047	CE	LYS	A	421	-30.108	56.322	37.307	1.00	43.94	A	C
ATOM	3048	NZ	LYS	A	421	-29.105	55.755	38.254	1.00	46.97	A	N
ATOM	3049	C	LYS	A	421	-31.280	60.523	34.388	1.00	41.39	A	C
ATOM	3050	O	LYS	A	421	-32.070	61.287	33.839	1.00	39.18	A	O
ATOM	3051	N	SER	A	422	-30.424	60.889	35.341	1.00	44.31	A	N
ATOM	3052	CA	SER	A	422	-30.210	62.251	35.881	1.00	45.78	A	C
ATOM	3053	CB	SER	A	422	-29.464	63.125	34.825	1.00	48.18	A	C
ATOM	3054	OG	SER	A	422	-30.316	63.958	34.050	1.00	47.92	A	O
ATOM	3055	C	SER	A	422	-31.423	63.002	36.432	1.00	43.60	A	C
ATOM	3056	O	SER	A	422	-32.557	62.617	36.166	1.00	45.23	A	O
ATOM	3057	N	LYS	A	423	-31.176	64.045	37.228	1.00	40.28	A	N
ATOM	3058	CA	LYS	A	423	-32.262	64.859	37.783	1.00	40.83	A	C
ATOM	3059	CB	LYS	A	423	-33.267	64.012	38.570	1.00	43.89	A	C
ATOM	3060	CG	LYS	A	423	-34.496	64.836	39.008	1.00	45.52	A	C
ATOM	3061	CD	LYS	A	423	-34.339	65.541	40.349	1.00	46.54	A	C
ATOM	3062	CE	LYS	A	423	-35.167	64.853	41.455	1.00	50.35	A	C
ATOM	3063	NZ	LYS	A	423	-36.513	65.467	41.778	1.00	52.30	A	N
ATOM	3064	C	LYS	A	423	-31.774	65.958	38.702	1.00	40.61	A	C
ATOM	3065	O	LYS	A	423	-32.456	66.963	38.930	1.00	40.70	A	O
ATOM	3066	N	TYR	A	424	-30.596	65.710	39.257	1.00	39.74	A	N
ATOM	3067	CA	TYR	A	424	-29.875	66.601	40.162	1.00	34.83	A	C
ATOM	3068	CB	TYR	A	424	-29.152	65.763	41.208	1.00	35.11	A	C
ATOM	3069	CG	TYR	A	424	-29.871	65.592	42.495	1.00	35.28	A	C
ATOM	3070	CD1	TYR	A	424	-29.452	66.276	43.626	1.00	37.09	A	C

Figure 1

ATOM	3071	CE1	TYR	A	424	-30.108	66.133	44.832	1.00	37.81	A	C
ATOM	3072	CD2	TYR	A	424	-30.967	64.756	42.594	1.00	35.33	A	C
ATOM	3073	CE2	TYR	A	424	-31.637	64.603	43.799	1.00	37.01	A	C
ATOM	3074	CZ	TYR	A	424	-31.201	65.294	44.918	1.00	37.93	A	C
ATOM	3075	OH	TYR	A	424	-31.842	65.146	46.121	1.00	37.86	A	O
ATOM	3076	C	TYR	A	424	-28.819	67.250	39.274	1.00	32.31	A	C
ATOM	3077	O	TYR	A	424	-27.771	67.655	39.753	1.00	33.78	A	O
ATOM	3078	N	PHE	A	425	-29.092	67.271	37.972	1.00	28.40	A	N
ATOM	3079	CA	PHE	A	425	-28.200	67.827	36.961	1.00	25.80	A	C
ATOM	3080	CB	PHE	A	425	-28.352	67.023	35.656	1.00	24.41	A	C
ATOM	3081	CG	PHE	A	425	-27.233	67.216	34.649	1.00	21.49	A	C
ATOM	3082	CD1	PHE	A	425	-25.965	66.700	34.899	1.00	20.11	A	C
ATOM	3083	CD2	PHE	A	425	-27.455	67.885	33.441	1.00	18.81	A	C
ATOM	3084	CE1	PHE	A	425	-24.927	66.844	33.966	1.00	19.00	A	C
ATOM	3085	CE2	PHE	A	425	-26.422	68.034	32.500	1.00	18.75	A	C
ATOM	3086	CZ	PHE	A	425	-25.156	67.513	32.766	1.00	18.83	A	C
ATOM	3087	C	PHE	A	425	-28.560	69.290	36.721	1.00	25.39	A	C
ATOM	3088	O	PHE	A	425	-29.504	69.585	36.006	1.00	25.85	A	O
ATOM	3089	N	MET	A	426	-27.817	70.200	37.341	1.00	26.01	A	N
ATOM	3090	CA	MET	A	426	-28.047	71.633	37.180	1.00	25.95	A	C
ATOM	3091	CB	MET	A	426	-28.599	72.223	38.462	1.00	25.03	A	C
ATOM	3092	CG	MET	A	426	-29.949	71.706	38.857	1.00	27.34	A	C
ATOM	3093	SD	MET	A	426	-30.488	72.602	40.317	1.00	31.46	A	S
ATOM	3094	CE	MET	A	426	-32.224	72.153	40.401	1.00	31.79	A	C
ATOM	3095	C	MET	A	426	-26.764	72.399	36.800	1.00	27.22	A	C
ATOM	3096	O	MET	A	426	-26.456	73.449	37.379	1.00	28.24	A	O
ATOM	3097	N	PRO	A	427	-25.982	71.873	35.844	1.00	26.64	A	N
ATOM	3098	CD	PRO	A	427	-26.028	70.619	35.082	1.00	26.04	A	C
ATOM	3099	CA	PRO	A	427	-24.790	72.624	35.504	1.00	26.08	A	C
ATOM	3100	CB	PRO	A	427	-24.080	71.695	34.536	1.00	25.46	A	C
ATOM	3101	CG	PRO	A	427	-25.192	70.942	33.897	1.00	24.59	A	C
ATOM	3102	C	PRO	A	427	-25.195	73.956	34.867	1.00	26.95	A	C
ATOM	3103	O	PRO	A	427	-24.559	74.979	35.097	1.00	27.72	A	O
ATOM	3104	N	PHE	A	428	-26.259	73.939	34.068	1.00	27.30	A	N
ATOM	3105	CA	PHE	A	428	-26.747	75.152	33.407	1.00	26.23	A	C
ATOM	3106	CB	PHE	A	428	-27.474	74.800	32.089	1.00	24.32	A	C
ATOM	3107	CG	PHE	A	428	-26.591	74.131	31.065	1.00	20.68	A	C
ATOM	3108	CD1	PHE	A	428	-26.389	72.766	31.081	1.00	18.91	A	C
ATOM	3109	CD2	PHE	A	428	-25.917	74.884	30.117	1.00	22.91	A	C
ATOM	3110	CE1	PHE	A	428	-25.527	72.153	30.170	1.00	19.20	A	C
ATOM	3111	CE2	PHE	A	428	-25.054	74.284	29.198	1.00	20.57	A	C
ATOM	3112	CZ	PHE	A	428	-24.859	72.917	29.229	1.00	19.26	A	C
ATOM	3113	C	PHE	A	428	-27.704	75.914	34.338	1.00	26.94	A	C
ATOM	3114	O	PHE	A	428	-28.406	76.834	33.914	1.00	28.66	A	O
ATOM	3115	N	SER	A	429	-27.690	75.552	35.618	1.00	26.15	A	N
ATOM	3116	CA	SER	A	429	-28.566	76.122	36.643	1.00	24.25	A	C
ATOM	3117	CB	SER	A	429	-28.515	77.638	36.676	1.00	25.14	A	C
ATOM	3118	CG	SER	A	429	-29.234	78.126	37.808	1.00	26.23	A	O
ATOM	3119	C	SER	A	429	-29.981	75.675	36.375	1.00	25.03	A	C
ATOM	3120	O	SER	A	429	-30.201	74.709	35.645	1.00	28.29	A	O
ATOM	3121	N	ALA	A	430	-30.940	76.385	36.955	1.00	25.12	A	N
ATOM	3122	CA	ALA	A	430	-32.368	76.066	36.840	1.00	23.22	A	C
ATOM	3123	CB	ALA	A	430	-32.749	75.084	37.916	1.00	20.30	A	C
ATOM	3124	C	ALA	A	430	-33.201	77.318	36.993	1.00	23.29	A	C
ATOM	3125	O	ALA	A	430	-32.698	78.354	37.422	1.00	26.79	A	O
ATOM	3126	N	GLY	A	431	-34.473	77.234	36.631	1.00	22.27	A	N
ATOM	3127	CA	GLY	A	431	-35.356	78.382	36.791	1.00	22.99	A	C
ATOM	3128	C	GLY	A	431	-35.482	79.379	35.655	1.00	23.72	A	C
ATOM	3129	O	GLY	A	431	-35.130	79.077	34.518	1.00	22.41	A	O
ATOM	3130	N	LYS	A	432	-35.979	80.577	35.982	1.00	25.42	A	N
ATOM	3131	CA	LYS	A	432	-36.200	81.657	35.004	1.00	26.31	A	C
ATOM	3132	CB	LYS	A	432	-36.941	82.832	35.646	1.00	26.29	A	C
ATOM	3133	CG	LYS	A	432	-38.215	82.498	36.382	1.00	31.08	A	C
ATOM	3134	CD	LYS	A	432	-39.287	81.948	35.455	1.00	36.76	A	C
ATOM	3135	CE	LYS	A	432	-40.535	81.489	36.213	1.00	38.87	A	C
ATOM	3136	NZ	LYS	A	432	-40.294	80.292	37.103	1.00	43.71	A	N
ATOM	3137	C	LYS	A	432	-34.916	82.210	34.403	1.00	27.10	A	C
ATOM	3138	O	LYS	A	432	-34.935	82.821	33.335	1.00	28.38	A	O
ATOM	3139	N	ARG	A	433	-33.812	82.005	35.110	1.00	27.86	A	N
ATOM	3140	CA	ARG	A	433	-32.505	82.496	34.701	1.00	27.41	A	C
ATOM	3141	CB	ARG	A	433	-31.804	83.130	35.907	1.00	27.50	A	C
ATOM	3142	CG	ARG	A	433	-32.274	84.539	36.238	1.00	27.54	A	C
ATOM	3143	CD	ARG	A	433	-31.626	85.566	35.333	1.00	26.49	A	C
ATOM	3144	NE	ARG	A	433	-32.050	86.930	35.663	1.00	26.00	A	N
ATOM	3145	CZ	ARG	A	433	-31.489	88.033	35.166	1.00	26.34	A	C

Figure 1

ATOM	3146	NH1	ARG	A	433	-30.469	87.973	34.317	1.00	23.44	A	N
ATOM	3147	NH2	ARG	A	433	-31.969	89.208	35.499	1.00	27.30	A	N
ATOM	3148	C	ARG	A	433	-31.658	81.379	34.152	1.00	26.60	A	C
ATOM	3149	O	ARG	A	433	-30.445	81.517	34.010	1.00	28.79	A	O
ATOM	3150	N	ILE	A	434	-32.288	80.257	33.846	1.00	26.20	A	N
ATOM	3151	CA	ILE	A	434	-31.532	79.125	33.322	1.00	25.67	A	C
ATOM	3152	CB	ILE	A	434	-32.445	77.884	33.060	1.00	22.89	A	C
ATOM	3153	CG2	ILE	A	434	-33.499	78.168	32.030	1.00	21.04	A	C
ATOM	3154	CG1	ILF		34	-31.598	76.758	32.499	1.00	21.96	A	C
ATOM	3155	CD1	ILE	A	434	-32.023	75.428	32.978	1.00	20.46	A	C
ATOM	3156	C	ILE	A	434	-30.760	79.479	32.057	1.00	24.22	A	C
ATOM	3157	O	ILE	A	434	-31.243	80.201	31.200	1.00	23.88	A	O
ATOM	3158	N	CYS	A	435	-29.543	78.972	31.978	1.00	24.87	A	N
ATOM	3159	CA	CYS	A	435	-28.698	79.205	30.835	1.00	28.11	A	C
ATOM	3160	CB	CYS	A	435	-27.647	78.094	30.730	1.00	27.77	A	C
ATOM	3161	SG	CYS	A	435	-26.619	78.207	29.223	1.00	33.28	A	S
ATOM	3162	C	CYS	A	435	-29.542	79.252	29.562	1.00	27.75	A	C
ATOM	3163	O	CYS	A	435	-30.474	78.473	29.388	1.00	29.13	A	O
ATOM	3164	N	VAL	A	436	-29.205	80.191	28.692	1.00	27.07	A	N
ATOM	3165	CA	VAL	A	436	-29.894	80.389	27.441	1.00	26.13	A	C
ATOM	3166	CB	VAL	A	436	-29.691	81.823	26.967	1.00	27.40	A	C
ATOM	3167	CG1	VAL	A	436	-30.180	81.987	25.554	1.00	27.43	A	C
ATOM	3168	CG2	VAL	A	436	-30.400	82.780	27.904	1.00	27.30	A	C
ATOM	3169	C	VAL	A	436	-29.308	79.449	26.406	1.00	27.24	A	C
ATOM	3170	O	VAL	A	436	-29.966	79.059	25.433	1.00	29.06	A	O
ATOM	3171	N	GLY	A	437	-28.052	79.085	26.625	1.00	26.95	A	N
ATOM	3172	CA	GLY	A	437	-27.360	78.206	25.702	1.00	25.63	A	C
ATOM	3173	C	GLY	A	437	-27.308	76.777	26.181	1.00	25.25	A	C
ATOM	3174	O	GLY	A	437	-26.354	76.056	25.906	1.00	25.33	A	O
ATOM	3175	N	GLU	A	438	-28.335	76.368	26.911	1.00	24.74	A	N
ATOM	3176	CA	GLU	A	438	-28.384	75.009	27.404	1.00	24.84	A	C
ATOM	3177	CB	GLU	A	438	-29.612	74.812	28.261	1.00	25.64	A	C
ATOM	3178	CG	GLU	A	438	-29.636	73.488	28.947	1.00	29.03	A	C
ATOM	3179	CD	GLU	A	438	-30.926	73.301	29.728	1.00	31.59	A	C
ATOM	3180	OE1	GLU	A	438	-31.065	72.261	30.423	1.00	34.61	A	O
ATOM	3181	OE2	GLU	A	438	-31.795	74.201	29.645	1.00	29.23	A	O
ATOM	3182	C	GLU	A	438	-28.404	74.043	26.222	1.00	24.25	A	C
ATOM	3183	O	GLU	A	438	-27.696	73.049	26.221	1.00	25.24	A	O
ATOM	3184	N	ALA	A	439	-29.193	74.336	25.198	1.00	23.20	A	N
ATOM	3185	CA	ALA	A	439	-29.230	73.447	24.056	1.00	23.25	A	C
ATOM	3186	CB	ALA	A	439	-30.406	73.773	23.171	1.00	22.22	A	C
ATOM	3187	C	ALA	A	439	-27.942	73.520	23.248	1.00	25.34	A	C
ATOM	3188	O	ALA	A	439	-27.277	72.501	23.032	1.00	28.78	A	O
ATOM	3189	N	LEU	A	440	-27.598	74.722	22.788	1.00	25.62	A	N
ATOM	3190	CA	LEU	A	440	-26.393	74.940	21.980	1.00	24.03	A	C
ATOM	3191	CB	LEU	A	440	-26.166	76.431	21.729	1.00	23.43	A	C
ATOM	3192	CG	LEU	A	440	-24.814	76.850	21.142	1.00	21.87	A	C
ATOM	3193	CD1	LEU	A	440	-24.628	76.246	19.760	1.00	21.87	A	C
ATOM	3194	CD2	LEU	A	440	-24.752	78.357	21.064	1.00	22.15	A	C
ATOM	3195	C	LEU	A	440	-25.179	74.394	22.674	1.00	23.79	A	C
ATOM	3196	O	LEU	A	440	-24.288	73.852	22.052	1.00	23.59	A	O
ATOM	3197	N	ALA	A	441	-25.131	74.552	23.977	1.00	23.46	A	N
ATOM	3198	CA	ALA	A	441	-23.990	74.058	24.672	1.00	24.13	A	C
ATOM	3199	CB	ALA	A	441	-24.045	74.485	26.128	1.00	25.20	A	C
ATOM	3200	C	ALA	A	441	-23.992	72.559	24.562	1.00	24.60	A	C
ATOM	3201	O	ALA	A	441	-22.970	71.972	24.236	1.00	25.46	A	O
ATOM	3202	N	GLY	A	442	-25.137	71.937	24.843	1.00	24.78	A	N
ATOM	3203	CA	GLY	A	442	-25.225	70.482	24.797	1.00	24.59	A	C
ATOM	3204	C	GLY	A	442	-24.908	69.947	23.419	1.00	24.02	A	C
ATOM	3205	O	GLY	A	442	-24.335	68.875	23.244	1.00	25.31	A	O
ATOM	3206	N	MET	A	443	-25.284	70.738	22.432	1.00	24.75	A	N
ATOM	3207	CA	MET	A	443	-25.084	70.419	21.043	1.00	25.46	A	C
ATOM	3208	CB	MET	A	443	-25.854	71.421	20.201	1.00	28.41	A	C
ATOM	3209	CG	MET	A	443	-26.245	70.870	18.867	1.00	33.22	A	C
ATOM	3210	SD	MET	A	443	-27.152	72.029	17.808	1.00	41.26	A	S
ATOM	3211	CE	MET	A	443	-28.732	72.423	18.767	1.00	36.17	A	C
ATOM	3212	C	MET	A	443	-23.613	70.452	20.661	1.00	25.19	A	C
ATOM	3213	O	MET	A	443	-23.163	69.634	19.889	1.00	25.49	A	O
ATOM	3214	N	GLU	A	444	-22.851	71.388	21.208	1.00	26.73	A	N
ATOM	3215	CA	GLU	A	444	-21.442	71.494	20.849	1.00	27.79	A	C
ATOM	3216	CB	GLU	A	444	-20.901	72.865	21.220	1.00	28.33	A	C
ATOM	3217	CG	GLU	A	444	-21.632	74.041	20.655	1.00	33.19	A	C
ATOM	3218	CD	GLU	A	444	-20.973	75.320	21.067	1.00	37.10	A	C
ATOM	3219	OE1	GLU	A	444	-19.729	75.346	21.021	1.00	42.19	A	O
ATOM	3220	OE2	GLU	A	444	-21.669	76.293	21.429	1.00	38.63	A	O

Figure 1

ATOM	3221	C	GLU	A	444	-20.625	70.429	21.569	1.00	28.02	A	C
ATOM	3222	O	GLU	A	444	-19.724	69.829	20.987	1.00	29.38	A	O
ATOM	3223	N	LEU	A	445	-20.929	70.211	22.845	1.00	26.91	A	N
ATOM	3224	CA	LEU	A	445	-20.222	69.215	23.620	1.00	26.03	A	C
ATOM	3225	CB	LEU	A	445	-20.764	69.139	25.030	1.00	24.84	A	C
ATOM	3226	CG	LEU	A	445	-20.271	70.274	25.914	1.00	26.40	A	C
ATOM	3227	CD1	LEU	A	445	-20.966	70.239	27.274	1.00	23.95	A	C
ATOM	3228	CD2	LEU	A	445	-18.756	70.136	26.067	1.00	24.66	A	C
ATOM	3229	C	LEU	A	445	-20.383	67.875	22.963	1.00	25.99	A	C
ATOM	3230	O	LEU	A	445	-19.401	67.168	22.714	1.00	28.13	A	O
ATOM	3231	N	PHE	A	446	-21.626	67.522	22.670	1.00	24.19	A	N
ATOM	3232	CA	PHE	A	446	-21.912	66.238	22.057	1.00	21.97	A	C
ATOM	3233	CB	PHE	A	446	-23.417	66.020	21.923	1.00	20.59	A	C
ATOM	3234	CG	PHE	A	446	-23.772	64.714	21.273	1.00	18.18	A	C
ATOM	3235	CD1	PHE	A	446	-24.125	64.662	19.930	1.00	17.53	A	C
ATOM	3236	CD2	PHE	A	446	-23.729	63.523	22.000	1.00	15.18	A	C
ATOM	3237	CE1	PHE	A	446	-24.434	63.436	19.320	1.00	16.42	A	C
ATOM	3238	CE2	PHE	A	446	-24.034	62.312	21.398	1.00	14.16	A	C
ATOM	3239	CZ	PHE	A	446	-24.385	62.264	20.058	1.00	13.49	A	C
ATOM	3240	C	PHE	A	446	-21.273	66.091	20.700	1.00	21.47	A	C
ATOM	3241	O	PHE	A	446	-20.558	65.118	20.455	1.00	21.99	A	O
ATOM	3242	N	LEU	A	447	-21.543	67.062	19.829	1.00	19.85	A	N
ATOM	3243	CA	LEU	A	447	-21.027	67.084	18.468	1.00	18.25	A	C
ATOM	3244	CB	LEU	A	447	-21.704	68.213	17.658	1.00	17.10	A	C
ATOM	3245	CG	LEU	A	447	-23.190	68.025	17.294	1.00	18.05	A	C
ATOM	3246	CD1	LEU	A	447	-23.743	69.221	16.498	1.00	17.51	A	C
ATOM	3247	CD2	LEU	A	447	-23.352	66.765	16.518	1.00	16.62	A	C
ATOM	3248	C	LEU	A	447	-19.500	67.193	18.360	1.00	18.18	A	C
ATOM	3249	O	LEU	A	447	-18.915	66.570	17.486	1.00	18.00	A	O
ATOM	3250	N	PHE	A	448	-18.838	67.969	19.215	1.00	19.18	A	N
ATOM	3251	CA	PHE	A	448	-17.388	68.051	19.092	1.00	20.90	A	C
ATOM	3252	CB	PHE	A	448	-16.776	69.257	19.832	1.00	18.05	A	C
ATOM	3253	CG	PHE	A	448	-17.106	70.591	19.233	1.00	17.28	A	C
ATOM	3254	CD1	PHE	A	448	-17.801	70.693	18.047	1.00	17.20	A	C
ATOM	3255	CD2	PHE	A	448	-16.816	71.757	19.925	1.00	20.87	A	C
ATOM	3256	CE1	PHE	A	448	-18.227	71.926	17.557	1.00	16.45	A	C
ATOM	3257	CE2	PHE	A	448	-17.240	73.020	19.444	1.00	19.79	A	C
ATOM	3258	CZ	PHE	A	448	-17.949	73.092	18.257	1.00	18.83	A	C
ATOM	3259	C	PHE	A	448	-16.819	66.770	19.687	1.00	24.23	A	C
ATOM	3260	O	PHE	A	448	-16.222	65.961	18.982	1.00	25.03	A	O
ATOM	3261	N	LEU	A	449	-17.036	66.551	20.978	1.00	27.27	A	N
ATOM	3262	CA	LEU	A	449	-16.488	65.362	21.606	1.00	29.13	A	C
ATOM	3263	CB	LEU	A	449	-17.205	65.083	22.930	1.00	30.56	A	C
ATOM	3264	CG	LEU	A	449	-16.762	66.002	24.067	1.00	32.31	A	C
ATOM	3265	CD1	LEU	A	449	-17.539	65.653	25.323	1.00	32.19	A	C
ATOM	3266	CD2	LEU	A	449	-15.238	65.839	24.310	1.00	33.10	A	C
ATOM	3267	C	LEU	A	449	-16.570	64.146	20.701	1.00	28.98	A	C
ATOM	3268	O	LEU	A	449	-15.598	63.425	20.522	1.00	28.26	A	O
ATOM	3269	N	THR	A	450	-17.726	63.962	20.085	1.00	30.03	A	N
ATOM	3270	CA	THR	A	450	-17.977	62.806	19.243	1.00	30.53	A	C
ATOM	3271	CB	THR	A	450	-19.499	62.724	19.009	1.00	30.83	A	C
ATOM	3272	OG1	THR	A	450	-19.842	61.440	18.490	1.00	34.66	A	O
ATOM	3273	CG2	THR	A	450	-19.948	63.834	18.078	1.00	31.02	A	C
ATOM	3274	C	THR	A	450	-17.160	62.817	17.946	1.00	29.25	A	C
ATOM	3275	O	THR	A	450	-16.557	61.816	17.574	1.00	27.72	A	O
ATOM	3276	N	SER	A	451	-17.113	63.964	17.284	1.00	30.12	A	N
ATOM	3277	CA	SER	A	451	-16.341	64.108	16.058	1.00	30.44	A	C
ATOM	3278	CB	SER	A	451	-16.608	65.471	15.426	1.00	28.64	A	C
ATOM	3279	OG	SER	A	451	-17.998	65.672	15.241	1.00	28.87	A	O
ATOM	3280	C	SER	A	451	-14.848	63.975	16.352	1.00	32.16	A	C
ATOM	3281	O	SER	A	451	-14.082	63.496	15.521	1.00	33.03	A	O
ATOM	3282	N	ILE	A	452	-14.403	64.377	17.531	1.00	32.71	A	N
ATOM	3283	CA	ILE	A	452	-12.980	64.243	17.750	1.00	33.65	A	C
ATOM	3284	CB	ILE	A	452	-12.489	65.154	18.870	1.00	33.44	A	C
ATOM	3285	CG2	ILE	A	452	-13.381	66.373	18.980	1.00	31.19	A	C
ATOM	3286	CG1	ILE	A	452	-12.436	64.381	20.176	1.00	35.91	A	C
ATOM	3287	CD1	ILE	A	452	-11.040	63.961	20.560	1.00	37.38	A	C
ATOM	3288	C	ILE	A	452	-12.552	62.813	18.043	1.00	35.55	A	C
ATOM	3289	O	ILE	A	452	-11.452	62.414	17.679	1.00	36.47	A	O
ATOM	3290	N	LEU	A	453	-13.421	62.043	18.693	1.00	37.34	A	N
ATOM	3291	CA	LEU	A	453	-13.113	60.661	19.031	1.00	38.07	A	C
ATOM	3292	CB	LEU	A	453	-13.924	60.222	20.258	1.00	37.57	A	C
ATOM	3293	CG	LEU	A	453	-13.516	60.713	21.655	1.00	36.97	A	C
ATOM	3294	CD1	LEU	A	453	-14.548	60.265	22.687	1.00	36.61	A	C
ATOM	3295	CD2	LEU	A	453	-12.158	60.177	22.021	1.00	36.88	A	C

Figure 1

ATOM	3296	C	LEU	A	453	-13.410	59.736	17.855	1.00	38.53	A	C
ATOM	3297	O	LEU	A	453	-13.021	58.565	17.859	1.00	38.54	A	O
ATOM	3298	N	GLN	A	454	-14.114	60.255	16.857	1.00	37.97	A	N
ATOM	3299	CA	GLN	A	454	-14.431	59.448	15.694	1.00	38.91	A	C
ATOM	3300	CB	GLN	A	454	-15.665	59.982	14.977	1.00	35.81	A	C
ATOM	3301	CG	GLN	A	454	-15.999	59.255	13.700	1.00	34.13	A	C
ATOM	3302	CD	GLN	A	454	-17.070	59.975	12.906	1.00	36.28	A	C
ATOM	3303	OE1	GLN	A	454	-17.945	59.358	12.297	1.00	36.86	A	O
ATOM	3304	NE2	GLN	A	454	-17.000	61.295	12.902	1.00	37.55	A	N
ATOM	3305	C	GLN	A	454	-13.256	59.495	14.739	1.00	40.95	A	C
ATOM	3306	O	GLN	A	454	-13.029	58.566	13.973	1.00	43.10	A	O
ATOM	3307	N	ASN	A	455	-12.498	60.581	14.795	1.00	42.29	A	N
ATOM	3308	CA	ASN	A	455	-11.374	60.749	13.893	1.00	41.61	A	C
ATOM	3309	CB	ASN	A	455	-11.466	62.129	13.261	1.00	39.71	A	C
ATOM	3310	CG	ASN	A	455	-12.718	62.288	12.429	1.00	40.00	A	C
ATOM	3311	OD1	ASN	A	455	-12.754	61.891	11.276	1.00	43.17	A	O
ATOM	3312	ND2	ASN	A	455	-13.757	62.846	13.015	1.00	38.24	A	N
ATOM	3313	C	ASN	A	455	-10.014	60.532	14.520	1.00	42.70	A	C
ATOM	3314	O	ASN	A	455	-9.060	60.203	13.821	1.00	44.74	A	O
ATOM	3315	N	PHE	A	456	-9.922	60.693	15.835	1.00	42.92	A	N
ATOM	3316	CA	PHE	A	456	-8.650	60.517	16.513	1.00	43.43	A	C
ATOM	3317	CB	PHE	A	456	-8.064	61.870	16.896	1.00	42.60	A	C
ATOM	3318	CG	PHE	A	456	-8.102	62.883	15.797	1.00	41.05	A	C
ATOM	3319	CD1	PHE	A	456	-7.183	62.840	14.759	1.00	39.70	A	C
ATOM	3320	CD2	PHE	A	456	-9.065	63.884	15.799	1.00	39.82	A	C
ATOM	3321	CE1	PHE	A	456	-7.225	63.780	13.741	1.00	39.52	A	C
ATOM	3322	CE2	PHE	A	456	-9.114	64.825	14.787	1.00	39.13	A	C
ATOM	3323	CZ	PHE	A	456	-8.193	64.775	13.754	1.00	38.68	A	C
ATOM	3324	C	PHE	A	456	-8.717	59.682	17.775	1.00	45.04	A	C
ATOM	3325	O	PHE	A	456	-9.791	59.339	18.278	1.00	44.44	A	O
ATOM	3326	N	ASN	A	457	-7.554	59.336	18.228	1.00	15.00	A	
ATOM	3327	CA	ASN	A	457	-7.298	58.661	19.494	1.00	15.00	A	
ATOM	3328	CB	ASN	A	457	-6.601	57.320	19.250	1.00	15.00	A	
ATOM	3329	CG	ASN	A	457	-7.527	56.282	18.649	1.00	15.00	A	
ATOM	3330	OD1	ASN	A	457	-8.671	56.131	19.079	1.00	15.00	A	
ATOM	3331	ND2	ASN	A	457	-7.036	55.557	17.652	1.00	15.00	A	
ATOM	3332	C	ASN	A	457	-6.445	59.528	20.414	1.00	15.00	A	
ATOM	3333	O	ASN	A	457	-5.460	60.059	19.888	1.00	50.60	A	
ATOM	3334	N	LEU	A	458	-6.850	59.713	21.596	1.00	52.02	A	N
ATOM	3335	CA	LEU	A	458	-6.125	60.599	22.472	1.00	54.10	A	C
ATOM	3336	CB	LEU	A	458	-7.101	61.165	23.503	1.00	52.43	A	C
ATOM	3337	CG	LEU	A	458	-8.454	61.629	22.943	1.00	50.99	A	C
ATOM	3338	CD1	LEU	A	458	-9.311	62.155	24.088	1.00	50.86	A	C
ATOM	3339	CD2	LEU	A	458	-8.266	62.692	21.881	1.00	49.00	A	C
ATOM	3340	C	LEU	A	458	-4.924	59.958	23.166	1.00	56.41	A	C
ATOM	3341	O	LEU	A	458	-5.087	59.239	24.147	1.00	57.85	A	O
ATOM	3342	N	LYS	A	459	-3.710	60.207	22.649	1.00	15.00	A	
ATOM	3343	CA	LYS	A	459	-2.519	59.671	23.294	1.00	15.00	A	
ATOM	3344	CB	LYS	A	459	-1.474	59.289	22.243	1.00	15.00	A	
ATOM	3345	CG	LYS	A	459	-1.848	58.075	21.408	1.00	15.00	A	
ATOM	3346	CD	LYS	A	459	-0.757	57.738	20.405	1.00	15.00	A	
ATOM	3347	CE	LYS	A	459	-1.132	56.525	19.569	1.00	15.00	A	
ATOM	3348	NZ	LYS	A	459	-0.072	56.182	18.581	1.00	15.00	A	
ATOM	3349	C	LYS	A	459	-1.923	60.681	24.270	1.00	15.00	A	
ATOM	3350	O	LYS	A	459	-1.859	61.869	23.964	1.00	61.44	A	
ATOM	3351	N	SER	A	460	-1.500	60.188	25.424	1.00	64.04	A	N
ATOM	3352	CA	SER	A	460	-0.912	61.024	26.470	1.00	66.10	A	C
ATOM	3353	CB	SER	A	460	-1.271	60.464	27.845	1.00	65.18	A	C
ATOM	3354	OG	SER	A	460	-0.739	61.274	28.875	1.00	65.17	A	O
ATOM	3355	C	SER	A	460	0.605	61.113	26.352	1.00	68.11	A	C
ATOM	3356	O	SER	A	460	1.220	60.363	25.598	1.00	68.86	A	O
ATOM	3357	N	LEU	A	461	1.213	62.034	27.095	1.00	70.83	A	N
ATOM	3358	CA	LEU	A	461	2.667	62.175	27.059	1.00	73.31	A	C
ATOM	3359	CB	LEU	A	461	3.069	63.653	27.079	1.00	72.85	A	C
ATOM	3360	CG	LEU	A	461	2.487	64.527	25.960	1.00	73.20	A	C
ATOM	3361	CD1	LEU	A	461	3.036	65.950	26.066	1.00	73.51	A	C
ATOM	3362	CD2	LEU	A	461	2.833	63.925	24.612	1.00	73.48	A	C
ATOM	3363	C	LEU	A	461	3.269	61.437	28.251	1.00	74.86	A	C
ATOM	3364	O	LEU	A	461	4.271	60.733	28.116	1.00	75.81	A	O
ATOM	3365	N	VAL	A	462	2.648	61.587	29.415	1.00	76.31	A	N
ATOM	3366	CA	VAL	A	462	3.119	60.911	30.615	1.00	78.64	A	C
ATOM	3367	CB	VAL	A	462	3.170	61.880	31.822	1.00	79.03	A	C
ATOM	3368	CG1	VAL	A	462	1.758	62.265	32.249	1.00	76.93	A	C
ATOM	3369	CG2	VAL	A	462	3.934	61.233	32.977	1.00	79.18	A	C
ATOM	3370	C	VAL	A	462	2.160	59.767	30.944	1.00	80.12	A	C

Figure 1

ATOM	3371	O	VAL	A	462	1.073	59.685	30.381	1.00	80.84	A	O
ATOM	3372	N	ASP	A	463	2.583	58.878	31.836	1.00	15.00	A	
ATOM	3373	CA	ASP	A	463	1.716	57.784	32.260	1.00	15.00	A	
ATOM	3374	CB	ASP	A	463	2.396	56.968	33.362	1.00	15.00	A	
ATOM	3375	CG	ASP	A	463	3.575	56.165	32.848	1.00	15.00	A	
ATOM	3376	OD1	ASP	A	463	3.538	55.735	31.677	1.00	15.00	A	
ATOM	3377	OD2	ASP	A	463	4.539	55.965	33.617	1.00	15.00	A	
ATOM	3378	C	ASP	A	463	0.376	58.312	32.761	1.00	15.00	A	
ATOM	3379	O	ASP	A	463	0.392	59.180	33.645	1.00	83.23	A	
ATOM	3380	N	PRO	A	464	-0.737	57.858	32.206	1.00	82.35	A	N
ATOM	3381	CD	PRO	A	464	-0.902	56.943	31.063	1.00	82.04	A	C
ATOM	3382	CA	PRO	A	464	-2.040	58.348	32.665	1.00	82.19	A	C
ATOM	3383	CB	PRO	A	464	-3.016	57.395	31.988	1.00	81.60	A	C
ATOM	3384	CG	PRO	A	464	-2.358	57.164	30.673	1.00	81.26	A	C
ATOM	3385	C	PRO	A	464	-2.107	58.269	34.186	1.00	82.02	A	C
ATOM	3386	O	PRO	A	464	-2.811	59.040	34.836	1.00	81.65	A	O
ATOM	3387	N	LYS	A	465	-1.358	57.322	34.739	1.00	82.36	A	N
ATOM	3388	CA	LYS	A	465	-1.293	57.131	36.178	1.00	83.12	A	C
ATOM	3389	CB	LYS	A	465	-0.226	56.084	36.530	1.00	84.14	A	C
ATOM	3390	CG	LYS	A	465	-0.655	54.624	36.361	1.00	85.05	A	C
ATOM	3391	CD	LYS	A	465	-1.877	54.313	37.223	1.00	86.12	A	C
ATOM	3392	CE	LYS	A	465	-1.953	52.837	37.574	1.00	87.52	A	C
ATOM	3393	NZ	LYS	A	465	-0.825	52.426	38.468	1.00	88.59	A	N
ATOM	3394	C	LYS	A	465	-0.954	58.443	36.876	1.00	82.97	A	C
ATOM	3395	O	LYS	A	465	-1.235	58.608	38.065	1.00	83.47	A	O
ATOM	3396	N	ASN	A	466	-0.378	59.395	36.124	1.00	15.00	A	
ATOM	3397	CA	ASN	A	466	0.048	60.667	36.695	1.00	15.00	A	
ATOM	3398	CB	ASN	A	466	1.566	60.820	36.578	1.00	15.00	A	
ATOM	3399	CG	ASN	A	466	2.319	59.909	37.526	1.00	15.00	A	
ATOM	3400	OD1	ASN	A	466	1.961	59.780	38.697	1.00	15.00	A	
ATOM	3401	ND2	ASN	A	466	3.371	59.273	37.026	1.00	15.00	A	
ATOM	3402	C	ASN	A	466	-0.646	61.836	36.004	1.00	15.00	A	
ATOM	3403	O	ASN	A	466	-0.023	62.534	35.188	1.00	81.63	A	
ATOM	3404	N	LEU	A	467	-1.890	62.134	36.363	1.00	79.45	A	N
ATOM	3405	CA	LEU	A	467	-2.610	63.253	35.763	1.00	78.10	A	C
ATOM	3406	CB	LEU	A	467	-3.398	62.757	34.544	1.00	76.11	A	C
ATOM	3407	CG	LEU	A	467	-2.624	62.499	33.249	1.00	73.56	A	C
ATOM	3408	CD1	LEU	A	467	-3.515	61.856	32.211	1.00	72.28	A	C
ATOM	3409	CD2	LEU	A	467	-2.085	63.809	32.729	1.00	72.42	A	C
ATOM	3410	C	LEU	A	467	-3.561	63.926	36.755	1.00	78.56	A	C
ATOM	3411	O	LEU	A	467	-4.132	63.193	37.590	1.00	79.49	A	O
ATOM	3412	OXT	LEU	A	467	-3.745	65.168	36.678	1.00	77.72	A	O
TER	3412		LEU	A	467							
ATOM	3413	CB	THR	A	470	-5.830	68.305	40.707	1.00	70.95	A	C
ATOM	3414	OG1	THR	A	470	-6.386	68.819	41.922	1.00	70.86	A	O
ATOM	3415	CG2	THR	A	470	-4.821	69.315	40.154	1.00	71.45	A	C
ATOM	3416	C	THR	A	470	-7.743	69.366	39.557	1.00	70.71	A	C
ATOM	3417	O	THR	A	470	-7.180	70.408	39.210	1.00	69.89	A	O
ATOM	3418	N	THR	A	470	-6.465	67.553	38.384	1.00	70.82	A	N
ATOM	3419	CA	THR	A	470	-6.971	68.062	39.700	1.00	70.94	A	C
ATOM	3420	N	PRO	A	471	-9.050	69.329	39.843	1.00	71.07	A	N
ATOM	3421	CD	PRO	A	471	-9.853	68.161	40.243	1.00	70.66	A	C
ATOM	3422	CA	PRO	A	471	-9.890	70.525	39.734	1.00	71.75	A	C
ATOM	3423	CB	PRO	A	471	-11.268	70.019	40.166	1.00	71.17	A	C
ATOM	3424	CG	PRO	A	471	-11.228	68.563	39.782	1.00	70.30	A	C
ATOM	3425	C	PRO	A	471	-9.421	71.720	40.560	1.00	72.64	A	C
ATOM	3426	O	PRO	A	471	-9.084	71.587	41.745	1.00	72.94	A	O
ATOM	3427	N	VAL	A	472	-9.399	72.888	39.923	1.00	73.11	A	N
ATOM	3428	CA	VAL	A	472	-8.999	74.115	40.601	1.00	74.59	A	C
ATOM	3429	CB	VAL	A	472	-7.553	74.534	40.204	1.00	73.55	A	C
ATOM	3430	CG1	VAL	A	472	-6.590	73.417	40.547	1.00	73.73	A	C
ATOM	3431	CG2	VAL	A	472	-7.467	74.863	38.728	1.00	73.67	A	C
ATOM	3432	C	VAL	A	472	-9.987	75.257	40.327	1.00	75.91	A	C
ATOM	3433	O	VAL	A	472	-10.352	75.533	39.177	1.00	75.68	A	O
ATOM	3434	N	VAL	A	473	-10.434	75.905	41.400	1.00	77.60	A	N
ATOM	3435	CA	VAL	A	473	-11.388	77.002	41.279	1.00	79.17	A	C
ATOM	3436	CB	VAL	A	473	-12.176	77.220	42.587	1.00	79.35	A	C
ATOM	3437	CG1	VAL	A	473	-13.148	78.379	42.413	1.00	79.62	A	C
ATOM	3438	CG2	VAL	A	473	-12.926	75.956	42.958	1.00	78.93	A	C
ATOM	3439	C	VAL	A	473	-10.720	78.317	40.909	1.00	79.77	A	C
ATOM	3440	O	VAL	A	473	-10.251	79.060	41.777	1.00	79.64	A	O
ATOM	3441	N	ASN	A	474	-10.695	78.608	39.614	1.00	80.68	A	N
ATOM	3442	CA	ASN	A	474	-10.083	79.837	39.128	1.00	81.65	A	C
ATOM	3443	CB	ASN	A	474	-10.035	79.822	37.601	1.00	82.06	A	C
ATOM	3444	CG	ASN	A	474	-8.814	80.526	37.060	1.00	83.55	A	C

Figure 1

ATOM	3445	OD1	ASN	A	474	-8.716	80.798	35.858	1.00	84.28	A	O
ATOM	3446	ND2	ASN	A	474	-7.862	80.825	37.951	1.00	84.46	A	N
ATOM	3447	C	ASN	A	474	-10.861	81.069	39.613	1.00	81.45	A	C
ATOM	3448	O	ASN	A	474	-11.609	81.689	38.847	1.00	81.39	A	O
ATOM	3449	N	GLY	A	475	-10.685	81.420	40.883	1.00	80.40	A	N
ATOM	3450	CA	GLY	A	475	-11.392	82.563	41.422	1.00	79.03	A	C
ATOM	3451	C	GLY	A	475	-12.875	82.265	41.484	1.00	78.19	A	C
ATOM	3452	O	GLY	A	475	-13.328	81.517	42.355	1.00	78.06	A	O
ATOM	3453	N	PHE	A	476	-13.636	82.828	40.548	1.00	15.00	A	
ATOM	3454	CA	PHE	A	476	-15.079	82.621	40.527	1.00	15.00	A	
ATOM	3455	CB	PHE	A	476	-15.750	83.665	39.631	1.00	15.00	A	
ATOM	3456	CG	PHE	A	476	-15.392	83.536	38.177	1.00	15.00	A	
ATOM	3457	CD1	PHE	A	476	-16.136	82.725	37.336	1.00	15.00	A	
ATOM	3458	CD2	PHE	A	476	-14.312	84.226	37.652	1.00	15.00	A	
ATOM	3459	CE1	PHE	A	476	-15.810	82.603	35.999	1.00	15.00	A	
ATOM	3460	CE2	PHE	A	476	-13.981	84.108	36.316	1.00	15.00	A	
ATOM	3461	CZ	PHE	A	476	-14.731	83.297	35.489	1.00	15.00	A	
ATOM	3462	C	PHE	A	476	-15.424	81.220	40.036	1.00	15.00	A	
ATOM	3463	O	PHE	A	476	-15.936	80.391	40.806	1.00	75.02	A	
ATOM	3464	N	ALA	A	477	-15.185	80.955	38.753	1.00	72.73	A	N
ATOM	3465	CA	ALA	A	477	-15.488	79.659	38.154	1.00	70.22	A	C
ATOM	3466	CB	ALA	A	477	-15.602	79.806	36.640	1.00	70.23	A	C
ATOM	3467	C	ALA	A	477	-14.424	78.607	38.505	1.00	68.40	A	C
ATOM	3468	O	ALA	A	477	-13.802	78.674	39.568	1.00	67.12	A	O
ATOM	3469	N	SER	A	478	-14.241	77.627	37.619	1.00	66.38	A	N
ATOM	3470	CA	SER	A	478	-13.250	76.567	37.811	1.00	64.51	A	C
ATOM	3471	CB	SER	A	478	-13.898	75.303	38.375	1.00	65.14	A	C
ATOM	3472	OG	SER	A	478	-14.406	75.524	39.678	1.00	67.68	A	O
ATOM	3473	C	SER	A	478	-12.577	76.228	36.485	1.00	62.38	A	C
ATOM	3474	O	SER	A	478	-13.104	76.537	35.408	1.00	62.65	A	O
ATOM	3475	N	VAL	A	479	-11.417	75.584	36.572	1.00	58.42	A	N
ATOM	3476	CA	VAL	A	479	-10.655	75.217	35.389	1.00	55.01	A	C
ATOM	3477	CB	VAL	A	479	-9.758	76.360	34.926	1.00	54.19	A	C
ATOM	3478	CG1	VAL	A	479	-10.598	77.517	34.442	1.00	53.72	A	C
ATOM	3479	CG2	VAL	A	479	-8.859	76.785	36.072	1.00	53.45	A	C
ATOM	3480	C	VAL	A	479	-9.744	74.049	35.690	1.00	53.16	A	C
ATOM	3481	O	VAL	A	479	-9.306	73.875	36.825	1.00	53.94	A	O
ATOM	3482	N	PRO	A	480	-9.442	73.235	34.667	1.00	50.40	A	N
ATOM	3483	CD	PRO	A	480	-10.015	73.299	33.308	1.00	48.44	A	C
ATOM	3484	CA	PRO	A	480	-8.570	72.067	34.803	1.00	47.37	A	C
ATOM	3485	CB	PRO	A	480	-8.975	71.218	33.606	1.00	46.21	A	C
ATOM	3486	CG	PRO	A	480	-9.208	72.257	32.562	1.00	46.36	A	C
ATOM	3487	C	PRO	A	480	-7.091	72.477	34.751	1.00	44.85	A	C
ATOM	3488	O	PRO	A	480	-6.772	73.645	34.496	1.00	43.82	A	O
ATOM	3489	N	PRO	A	481	-6.182	71.522	35.023	1.00	41.97	A	N
ATOM	3490	CD	PRO	A	481	-6.532	70.267	35.696	1.00	41.52	A	C
ATOM	3491	CA	PRO	A	481	-4.731	71.687	35.018	1.00	40.82	A	C
ATOM	3492	CB	PRO	A	481	-4.233	70.421	35.710	1.00	40.33	A	C
ATOM	3493	CG	PRO	A	481	-5.353	70.058	36.591	1.00	40.92	A	C
ATOM	3494	C	PRO	A	481	-4.235	71.739	33.578	1.00	40.26	A	C
ATOM	3495	O	PRO	A	481	-4.987	71.441	32.646	1.00	41.14	A	O
ATOM	3496	N	PHE	A	482	-2.970	72.114	33.409	1.00	38.33	A	N
ATOM	3497	CA	PHE	A	482	-2.358	72.168	32.098	1.00	36.65	A	C
ATOM	3498	CB	PHE	A	482	-1.099	73.019	32.138	1.00	34.94	A	C
ATOM	3499	CG	PHE	A	482	-0.267	72.914	30.900	1.00	33.41	A	C
ATOM	3500	CD1	PHE	A	482	0.730	71.943	30.791	1.00	33.31	A	C
ATOM	3501	CD2	PHE	A	482	-0.512	73.748	29.820	1.00	30.54	A	C
ATOM	3502	CE1	PHE	A	482	1.462	71.809	29.612	1.00	32.29	A	C
ATOM	3503	CE2	PHE	A	482	0.212	73.620	28.644	1.00	30.15	A	C
ATOM	3504	CZ	PHE	A	482	1.199	72.650	28.535	1.00	30.57	A	C
ATOM	3505	C	PHE	A	482	-1.993	70.750	31.712	1.00	36.97	A	C
ATOM	3506	O	PHE	A	482	-1.688	69.947	32.578	1.00	37.93	A	O
ATOM	3507	N	TYR	A	483	-2.032	70.438	30.421	1.00	37.53	A	N
ATOM	3508	CA	TYR	A	483	-1.677	69.107	29.961	1.00	38.43	A	C
ATOM	3509	CB	TYR	A	483	-2.701	68.076	30.473	1.00	39.48	A	C
ATOM	3510	CG	TYR	A	483	-3.962	67.973	29.637	1.00	40.38	A	C
ATOM	3511	CD1	TYR	A	483	-3.985	67.212	28.465	1.00	39.49	A	C
ATOM	3512	CE1	TYR	A	483	-5.099	67.203	27.632	1.00	39.39	A	C
ATOM	3513	CD2	TYR	A	483	-5.099	68.717	29.962	1.00	40.56	A	C
ATOM	3514	CE2	TYR	A	483	-6.214	68.717	29.136	1.00	39.33	A	C
ATOM	3515	CZ	TYR	A	483	-6.204	67.965	27.971	1.00	40.65	A	C
ATOM	3516	OH	TYR	A	483	-7.274	68.024	27.108	1.00	42.74	A	O
ATOM	3517	C	TYR	A	483	-1.618	69.109	28.440	1.00	39.29	A	C
ATOM	3518	O	TYR	A	483	-2.039	70.062	27.800	1.00	39.17	A	O
ATOM	3519	N	GLN	A	484	-1.092	68.039	27.864	1.00	41.65	A	N

Figure 1

ATOM	3520	CA	GLN	A	484	-0.970	67.937	26.418	1.00	44.75	A	C
ATOM	3521	CB	GLN	A	484	0.466	68.227	25.980	1.00	47.39	A	C
ATOM	3522	CG	GLN	A	484	1.187	69.327	26.719	1.00	52.06	A	C
ATOM	3523	CD	GLN	A	484	2.660	69.387	26.345	1.00	53.65	A	C
ATOM	3524	OE1	GLN	A	484	3.010	69.671	25.202	1.00	54.26	A	O
ATOM	3525	NE2	GLN	A	484	3.530	69.108	27.313	1.00	54.88	A	N
ATOM	3526	C	GLN	A	484	-1.280	66.520	25.947	1.00	46.08	A	C
ATOM	3527	O	GLN	A	484	-1.062	65.543	26.669	1.00	46.05	A	O
ATOM	3528	N	LEU	A	485	-1.765	66.398	24.723	1.00	47.36	A	N
ATOM	3529	CA	LEU	A	485	-2.009	65.079	24.179	1.00	50.15	A	C
ATOM	3530	CB	LEU	A	485	-3.426	64.602	24.493	1.00	50.47	A	C
ATOM	3531	CG	LEU	A	485	-4.578	65.129	23.650	1.00	51.64	A	C
ATOM	3532	CD1	LEU	A	485	-5.656	64.073	23.654	1.00	51.79	A	C
ATOM	3533	CD2	LEU	A	485	-5.089	66.473	24.176	1.00	50.79	A	C
ATOM	3534	C	LEU	A	485	-1.778	65.138	22.673	1.00	52.36	A	C
ATOM	3535	O	LEU	A	485	-1.526	66.214	22.115	1.00	52.60	A	O
ATOM	3536	N	CYS	A	486	-1.867	63.984	22.019	1.00	53.48	A	N
ATOM	3537	CA	CYS	A	486	-1.655	63.912	20.580	1.00	53.93	A	C
ATOM	3538	CB	CYS	A	486	-0.413	63.071	20.289	1.00	55.12	A	C
ATOM	3539	SG	CYS	A	486	0.979	63.513	21.342	1.00	58.63	A	S
ATOM	3540	C	CYS	A	486	-2.877	63.300	19.920	1.00	53.38	A	C
ATOM	3541	O	CYS	A	486	-3.300	62.204	20.280	1.00	53.56	A	O
ATOM	3542	N	PHE	A	487	-3.457	64.019	18.968	1.00	52.17	A	N
ATOM	3543	CA	PHE	A	487	-4.626	63.515	18.278	1.00	51.10	A	C
ATOM	3544	CB	PHE	A	487	-5.445	64.673	17.697	1.00	48.21	A	C
ATOM	3545	CG	PHE	A	487	-6.048	65.570	18.742	1.00	46.12	A	C
ATOM	3546	CD1	PHE	A	487	-5.247	66.400	19.514	1.00	45.45	A	C
ATOM	3547	CD2	PHE	A	487	-7.419	65.553	18.987	1.00	45.79	A	C
ATOM	3548	CE1	PHE	A	487	-5.799	67.204	20.517	1.00	44.49	A	C
ATOM	3549	CE2	PHE	A	487	-7.981	66.354	19.991	1.00	44.37	A	C
ATOM	3550	CZ	PHE	A	487	-7.168	67.177	20.755	1.00	43.64	A	C
ATOM	3551	C	PHE	A	487	-4.156	62.578	17.182	1.00	52.20	A	C
ATOM	3552	O	PHE	A	487	-3.858	63.008	16.067	1.00	53.59	A	O
ATOM	3553	N	ILE	A	488	-4.071	61.294	17.511	1.00	53.65	A	N
ATOM	3554	CA	ILE	A	488	-3.627	60.284	16.554	1.00	56.15	A	C
ATOM	3555	CB	ILE	A	488	-3.108	59.031	17.265	1.00	55.49	A	C
ATOM	3556	CG2	ILE	A	488	-2.576	58.047	16.250	1.00	55.84	A	C
ATOM	3557	CG1	ILE	A	488	-2.008	59.398	18.244	1.00	55.95	A	C
ATOM	3558	CD1	ILE	A	488	-1.544	58.218	19.052	1.00	56.88	A	C
ATOM	3559	C	ILE	A	488	-4.769	59.846	15.649	1.00	57.98	A	C
ATOM	3560	O	ILE	A	488	-5.831	59.461	16.132	1.00	58.25	A	O
ATOM	3561	N	PRO	A	489	-4.571	59.900	14.323	1.00	59.93	A	N
ATOM	3562	CD	PRO	A	489	-3.470	60.534	13.586	1.00	60.25	A	C
ATOM	3563	CA	PRO	A	489	-5.629	59.487	13.400	1.00	62.54	A	C
ATOM	3564	CB	PRO	A	489	-5.054	59.839	12.035	1.00	61.66	A	C
ATOM	3565	CG	PRO	A	489	-4.162	60.991	12.331	1.00	60.78	A	C
ATOM	3566	C	PRO	A	489	-5.915	57.993	13.523	1.00	65.24	A	C
ATOM	3567	O	PRO	A	489	-5.236	57.280	14.265	1.00	64.90	A	O
ATOM	3568	N	VAL	A	490	-6.899	57.530	12.787	1.00	15.00	A	
ATOM	3569	CA	VAL	A	490	-7.269	56.120	12.817	1.00	15.00	A	
ATOM	3570	CB	VAL	A	490	-8.397	55.861	13.835	1.00	15.00	A	
ATOM	3571	CG1	VAL	A	490	-8.882	54.423	13.724	1.00	15.00	A	
ATOM	3572	CG2	VAL	A	490	-7.911	56.156	15.245	1.00	15.00	A	
ATOM	3573	C	VAL	A	490	-7.729	55.646	11.442	1.00	15.00	A	
ATOM	3574	O	VAL	A	490	-8.456	56.375	10.761	1.00	77.97	A	
ATOM	3575	N	HIS	A	491	-7.289	54.471	11.027	1.00	80.83	A	N
ATOM	3576	CA	HIS	A	491	-7.673	53.950	9.714	1.00	83.82	A	C
ATOM	3577	CB	HIS	A	491	-7.186	54.893	8.608	1.00	86.47	A	C
ATOM	3578	CG	HIS	A	491	-8.014	54.840	7.361	1.00	89.34	A	C
ATOM	3579	CD2	HIS	A	491	-7.752	54.334	6.131	1.00	90.97	A	C
ATOM	3580	ND1	HIS	A	491	-9.291	55.355	7.298	1.00	90.84	A	N
ATOM	3581	CE1	HIS	A	491	-9.780	55.171	6.083	1.00	90.92	A	C
ATOM	3582	NE2	HIS	A	491	-8.866	54.554	5.356	1.00	91.43	A	N
ATOM	3583	C	HIS	A	491	-7.095	52.556	9.471	1.00	84.02	A	C
ATOM	3584	O	HIS	A	491	-6.441	52.017	10.393	1.00	83.96	A	O
ATOM	3585	OXT	HIS	A	491	-7.294	52.034	8.352	1.00	83.06	A	O
TER	3585		HIS	A	491							
ATOM	3586	FE1	HEM	A	501	-24.567	79.789	29.820	1.00	23.53	A	F
ATOM	3587	N2	HEM	A	501	-24.980	79.928	31.902	1.00	5.13	A	N
ATOM	3588	N3	HEM	A	501	-23.137	78.282	30.133	1.00	2.23	A	N
ATOM	3589	N4	HEM	A	501	-24.101	79.837	27.679	1.00	9.11	A	N
ATOM	3590	N5	HEM	A	501	-25.550	81.796	29.523	1.00	6.04	A	N
ATOM	3591	C6	HEM	A	501	-25.684	80.878	32.552	1.00	8.09	A	C
ATOM	3592	C7	HEM	A	501	-25.797	80.495	33.960	1.00	9.05	A	C
ATOM	3593	C8	HEM	A	501	-25.150	79.322	34.131	1.00	6.44	A	C

Figure 1

ATOM	3594	C9	HEM	A	501	-24.559	78.896	32.847	1.00	5.45	A	C
ATOM	3595	C10	HEM	A	501	-23.129	77.448	31.250	1.00	3.49	A	C
ATOM	3596	C11	HEM	A	501	-22.311	76.249	30.909	1.00	1.28	A	C
ATOM	3597	C12	HEM	A	501	-22.043	76.239	29.593	1.00	1.82	A	C
ATOM	3598	C13	HEM	A	501	-22.619	77.499	28.986	1.00	3.62	A	C
ATOM	3599	C14	HEM	A	501	-23.453	78.880	26.999	1.00	8.99	A	C
ATOM	3600	C15	HEM	A	501	-23.567	79.153	25.545	1.00	10.03	A	C
ATOM	3601	C16	HEM	A	501	-24.190	80.370	25.409	1.00	12.02	A	C
ATOM	3602	C17	HEM	A	501	-24.570	80.852	26.761	1.00	11.41	A	C
ATOM	3603	C18	HEM	A	501	-25.703	82.508	28.390	1.00	8.52	A	C
ATOM	3604	C19	HEM	A	501	-26.432	83.756	28.712	1.00	7.61	A	C
ATOM	3605	C20	HEM	A	501	-26.786	83.701	30.016	1.00	10.04	A	C
ATOM	3606	C21	HEM	A	501	-26.190	82.483	30.617	1.00	5.94	A	C
ATOM	3607	C22	HEM	A	501	-26.246	82.125	31.913	1.00	5.96	A	C
ATOM	3608	C23	HEM	A	501	-23.774	77.751	32.585	1.00	3.48	A	C
ATOM	3609	C24	HEM	A	501	-22.755	77.774	27.633	1.00	6.77	A	C
ATOM	3610	C25	HEM	A	501	-25.195	82.029	27.033	1.00	11.27	A	C
ATOM	3611	C26	HEM	A	501	-24.750	78.615	35.412	1.00	4.02	A	C
ATOM	3612	C27	HEM	A	501	-26.794	81.272	34.840	1.00	13.87	A	C
ATOM	3613	C28	HEM	A	501	-26.796	81.240	36.366	1.00	21.34	A	C
ATOM	3614	C29	HEM	A	501	-28.168	81.767	36.856	1.00	23.77	A	C
ATOM	3615	O30	HEM	A	501	-28.134	83.092	37.147	1.00	28.61	A	O
ATOM	3616	O31	HEM	A	501	-29.126	81.125	36.896	1.00	23.82	A	O
ATOM	3617	C32	HEM	A	501	-22.191	75.094	31.870	1.00	1.81	A	C
ATOM	3618	C33	HEM	A	501	-21.098	75.452	28.782	1.00	2.16	A	C
ATOM	3619	C34	HEM	A	501	-21.216	73.942	28.974	1.00	5.15	A	C
ATOM	3620	C35	HEM	A	501	-22.830	78.354	24.500	1.00	11.14	A	C
ATOM	3621	C36	HEM	A	501	-24.787	81.093	24.212	1.00	12.94	A	C
ATOM	3622	C37	HEM	A	501	-25.985	80.483	23.489	1.00	16.82	A	C
ATOM	3623	C38	HEM	A	501	-26.895	84.775	27.665	1.00	4.37	A	C
ATOM	3624	C39	HEM	A	501	-27.523	84.750	30.849	1.00	11.58	A	C
ATOM	3625	C40	HEM	A	501	-28.771	84.210	31.514	1.00	18.63	A	C
ATOM	3626	C41	HEM	A	501	-29.608	85.299	32.141	1.00	22.42	A	C
ATOM	3627	O42	HEM	A	501	-30.604	85.691	31.674	1.00	28.62	A	O
ATOM	3628	O43	HEM	A	501	-29.083	85.746	33.282	1.00	24.93	A	O
ATOM	3629	CB	PRO	B	30	-48.276	33.697	51.534	1.00	76.79	B	C
ATOM	3630	CG	PRO	B	30	-46.968	33.033	51.080	1.00	77.60	B	C
ATOM	3631	C	PRO	B	30	-49.363	34.507	49.401	1.00	73.52	B	C
ATOM	3632	O	PRO	B	30	-48.432	35.276	49.209	1.00	73.18	B	O
ATOM	3633	N	PRO	B	30	-48.679	32.105	49.760	1.00	77.30	B	N
ATOM	3634	CD	PRO	B	30	-47.414	31.719	50.415	1.00	77.81	B	C
ATOM	3635	CB	PRO	B	30	-49.220	33.338	50.388	1.00	75.82	B	C
ATOM	3636	N	PRO	B	31	-50.540	34.641	48.766	1.00	71.70	B	N
ATOM	3637	CD	PRO	B	31	-51.667	33.698	48.892	1.00	72.56	B	C
ATOM	3638	CB	PRO	B	31	-50.868	35.688	47.794	1.00	70.15	B	C
ATOM	3639	CB	PRO	B	31	-52.363	35.481	47.557	1.00	71.10	B	C
ATOM	3640	CG	PRO	B	31	-52.505	34.014	47.655	1.00	72.05	B	C
ATOM	3641	C	PRO	B	31	-50.575	37.077	48.332	1.00	67.98	B	C
ATOM	3642	O	PRO	B	31	-50.697	37.314	49.527	1.00	67.76	B	O
ATOM	3643	N	GLY	B	32	-50.193	37.990	47.445	1.00	65.66	B	N
ATOM	3644	CB	GLY	B	32	-49.892	39.340	47.876	1.00	63.13	B	C
ATOM	3645	C	GLY	B	32	-51.004	39.955	48.707	1.00	61.36	B	C
ATOM	3646	O	GLY	B	32	-52.159	39.553	48.565	1.00	62.17	B	O
ATOM	3647	N	PRO	B	33	-50.689	40.920	49.590	1.00	59.37	B	N
ATOM	3648	CD	PRO	B	33	-49.302	41.342	49.837	1.00	58.87	B	C
ATOM	3649	CB	PRO	B	33	-51.608	41.642	50.478	1.00	58.22	B	C
ATOM	3650	CB	PRO	B	33	-50.747	42.782	50.997	1.00	58.60	B	C
ATOM	3651	CG	PRO	B	33	-49.420	42.138	51.117	1.00	59.87	B	C
ATOM	3652	C	PRO	B	33	-52.850	42.148	49.748	1.00	57.40	B	C
ATOM	3653	O	PRO	B	33	-52.820	42.346	48.532	1.00	57.48	B	O
ATOM	3654	N	THR	B	34	-53.931	42.377	50.486	1.00	56.01	B	N
ATOM	3655	CB	THR	B	34	-55.172	42.831	49.868	1.00	56.18	B	C
ATOM	3656	CB	THR	B	34	-55.892	41.647	49.142	1.00	59.00	B	C
ATOM	3657	OG1	THR	B	34	-57.205	42.055	48.732	1.00	60.40	B	O
ATOM	3658	CG2	THR	B	34	-56.040	40.433	50.082	1.00	59.99	B	C
ATOM	3659	C	THR	B	34	-56.186	43.427	50.820	1.00	53.95	B	C
ATOM	3660	O	THR	B	34	-56.293	43.017	51.966	1.00	55.62	B	O
ATOM	3661	N	PRO	B	35	-56.956	44.407	50.355	1.00	51.24	B	N
ATOM	3662	CD	PRO	B	35	-56.939	45.180	49.107	1.00	50.33	B	C
ATOM	3663	CB	PRO	B	35	-57.929	44.934	51.299	1.00	50.88	B	C
ATOM	3664	CB	PRO	B	35	-58.433	46.199	50.609	1.00	48.93	B	C
ATOM	3665	CG	PRO	B	35	-58.274	45.889	49.141	1.00	49.16	B	C
ATOM	3666	C	PRO	B	35	-59.017	43.871	51.479	1.00	51.60	B	C
ATOM	3667	O	PRO	B	35	-59.710	43.529	50.518	1.00	52.24	B	O
ATOM	3668	N	LEU	B	36	-59.150	43.341	52.698	1.00	52.00	B	N

Figure 1

ATOM	3669	CB	LEU	B	36	-60.148	42.317	53.004	1.00	52.00	B	C
ATOM	3670	CB	LEU	B	36	-60.410	42.218	54.505	1.00	53.80	B	C
ATOM	3671	CG	LEU	B	36	-59.254	41.682	55.329	1.00	55.78	B	C
ATOM	3672	CD1	LEU	B	36	-59.726	41.441	56.759	1.00	57.16	B	C
ATOM	3673	CD2	LEU	B	36	-58.739	40.390	54.698	1.00	55.66	B	C
ATOM	3674	C	LEU	B	36	-61.473	42.544	52.324	1.00	50.83	B	C
ATOM	3675	O	LEU	B	36	-62.108	43.599	52.486	1.00	50.33	B	O
ATOM	3676	N	PRO	B	37	-61.911	41.540	51.557	1.00	49.37	B	N
ATOM	3677	CD	PRO	B	37	-61.076	40.358	51.281	1.00	48.29	B	C
ATOM	3678	CB	PRO	B	37	-63.147	41.484	50.790	1.00	49.26	B	C
ATOM	3679	CB	PRO	B	37	-62.837	40.437	49.737	1.00	48.32	B	C
ATOM	3680	CG	PRO	B	37	-61.984	39.486	50.481	1.00	47.64	B	C
ATOM	3681	C	PRO	B	37	-64.310	41.091	51.666	1.00	51.09	B	C
ATOM	3682	O	PRO	B	37	-64.275	40.064	52.348	1.00	51.17	B	O
ATOM	3683	N	VAL	B	38	-65.327	41.931	51.683	1.00	53.50	B	N
ATOM	3684	CB	VAL	B	38	-66.482	41.620	52.475	1.00	56.11	B	C
ATOM	3685	CB	VAL	B	38	-67.407	42.841	52.568	1.00	55.60	B	C
ATOM	3686	CG1	VAL	B	38	-68.240	42.972	51.303	1.00	54.50	B	C
ATOM	3687	CG2	VAL	B	38	-68.268	42.719	53.802	1.00	57.08	B	C
ATOM	3688	C	VAL	B	38	-67.099	40.486	51.648	1.00	58.12	B	C
ATOM	3689	O	VAL	B	38	-66.914	40.434	50.429	1.00	57.75	B	O
ATOM	3690	N	ILE	B	39	-67.785	39.556	52.300	1.00	60.26	B	N
ATOM	3691	CB	ILE	B	39	-68.348	38.432	51.567	1.00	62.14	B	C
ATOM	3692	CB	ILE	B	39	-68.991	37.413	52.502	1.00	64.13	B	C
ATOM	3693	CG2	ILE	B	39	-69.047	36.055	51.792	1.00	65.47	B	C
ATOM	3694	CG1	ILE	B	39	-68.181	37.308	53.804	1.00	66.46	B	C
ATOM	3695	CD1	ILE	B	39	-68.750	36.296	54.827	1.00	69.35	B	C
ATOM	3696	C	ILE	B	39	-69.370	38.835	50.519	1.00	61.66	B	C
ATOM	3697	O	ILE	B	39	-70.316	39.566	50.805	1.00	62.26	B	O
ATOM	3698	N	GLY	B	40	-69.167	38.347	49.303	1.00	61.42	B	N
ATOM	3699	CB	GLY	B	40	-70.073	38.661	48.220	1.00	61.48	B	C
ATOM	3700	C	GLY	B	40	-69.473	39.593	47.189	1.00	60.99	B	C
ATOM	3701	O	GLY	B	40	-69.811	39.472	46.011	1.00	60.73	B	O
ATOM	3702	N	ASN	B	41	-68.584	40.502	47.613	1.00	59.93	B	N
ATOM	3703	CB	ASN	B	41	-67.953	41.469	46.703	1.00	59.44	B	C
ATOM	3704	CB	ASN	B	41	-68.977	42.538	46.336	1.00	58.18	B	C
ATOM	3705	CG	ASN	B	41	-70.239	42.461	47.196	1.00	57.75	B	C
ATOM	3706	OD1	ASN	B	41	-70.181	42.529	48.415	1.00	57.04	B	O
ATOM	3707	ND2	ASN	B	41	-71.387	42.312	46.545	1.00	57.26	B	N
ATOM	3708	C	ASN	B	41	-66.708	42.156	47.271	1.00	60.68	B	C
ATOM	3709	O	ASN	B	41	-66.114	41.696	48.239	1.00	62.04	B	O
ATOM	3710	N	ILE	B	42	-66.314	43.259	46.637	1.00	62.47	B	N
ATOM	3711	CB	ILE	B	42	-65.188	44.114	47.077	1.00	62.55	B	C
ATOM	3712	CB	ILE	B	42	-63.808	43.622	46.601	1.00	61.21	B	C
ATOM	3713	CG2	ILE	B	42	-63.575	44.083	45.164	1.00	63.41	B	C
ATOM	3714	CG1	ILE	B	42	-62.709	44.232	47.494	1.00	59.37	B	C
ATOM	3715	CD1	ILE	B	42	-61.347	43.559	47.402	1.00	55.41	B	C
ATOM	3716	C	ILE	B	42	-65.475	45.479	46.428	1.00	63.22	B	C
ATOM	3717	O	ILE	B	42	-64.715	46.438	46.567	1.00	61.16	B	O
ATOM	3718	N	LEU	B	43	-66.607	45.511	45.725	1.00	65.03	B	N
ATOM	3719	CB	LEU	B	43	-67.138	46.660	45.012	1.00	66.62	B	C
ATOM	3720	CB	LEU	B	43	-68.607	46.388	44.674	1.00	66.27	B	C
ATOM	3721	CG	LEU	B	43	-69.124	46.915	43.338	1.00	66.48	B	C
ATOM	3722	CD1	LEU	B	43	-68.571	46.031	42.235	1.00	68.25	B	C
ATOM	3723	CD2	LEU	B	43	-70.642	46.915	43.300	1.00	66.70	B	C
ATOM	3724	C	LEU	B	43	-67.048	47.966	45.801	1.00	68.15	B	C
ATOM	3725	O	LEU	B	43	-66.861	49.038	45.224	1.00	68.49	B	O
ATOM	3726	N	GLN	B	44	-67.196	47.873	47.120	1.00	69.83	B	N
ATOM	3727	CB	GLN	B	44	-67.157	49.044	47.987	1.00	70.78	B	C
ATOM	3728	CB	GLN	B	44	-67.455	48.638	49.428	1.00	71.59	B	C
ATOM	3729	CG	GLN	B	44	-68.900	48.301	49.664	1.00	74.67	B	C
ATOM	3730	CD	GLN	B	44	-69.821	49.406	49.185	1.00	76.78	B	C
ATOM	3731	OE1	GLN	B	44	-69.723	50.551	49.636	1.00	78.74	B	O
ATOM	3732	NE2	GLN	B	44	-70.723	49.070	48.260	1.00	77.42	B	N
ATOM	3733	C	GLN	B	44	-65.840	49.792	47.949	1.00	70.99	B	C
ATOM	3734	O	GLN	B	44	-65.576	50.641	48.796	1.00	71.64	B	O
ATOM	3735	N	ILE	B	45	-65.015	49.493	46.959	1.00	71.87	B	N
ATOM	3736	CB	ILE	B	45	-63.727	50.145	46.872	1.00	72.31	B	C
ATOM	3737	CB	ILE	B	45	-62.702	49.314	47.643	1.00	72.40	B	C
ATOM	3738	CG2	ILE	B	45	-62.313	48.098	46.829	1.00	73.06	B	C
ATOM	3739	CG1	ILE	B	45	-61.504	50.176	48.015	1.00	73.99	B	C
ATOM	3740	CD1	ILE	B	45	-60.746	49.627	49.214	1.00	75.32	B	C
ATOM	3741	C	ILE	B	45	-63.277	50.382	45.427	1.00	72.34	B	C
ATOM	3742	O	ILE	B	45	-62.089	50.354	45.116	1.00	72.08	B	O
ATOM	3743	N	GLY	B	46	-64.251	50.622	44.551	1.00	72.70	B	N

Figure 1

ATOM	3744	CB	GLY	B	46	-63.952	50.897	43.162	1.00	72.66	B	C
ATOM	3745	C	GLY	B	46	-65.127	50.809	42.195	1.00	73.12	B	C
ATOM	3746	O	GLY	B	46	-65.998	49.941	42.315	1.00	72.03	B	O
ATOM	3747	N	ILE	B	47	-65.144	51.727	41.229	1.00	74.22	B	N
ATOM	3748	CB	ILE	B	47	-66.170	51.774	40.176	1.00	75.49	B	C
ATOM	3749	CB	ILE	B	47	-67.600	51.986	40.743	1.00	74.62	B	C
ATOM	3750	CG2	ILE	B	47	-67.689	53.320	41.480	1.00	75.70	B	C
ATOM	3751	CG1	ILE	B	47	-68.612	51.921	39.595	1.00	73.61	B	C
ATOM	3752	CD1	ILE	B	47	-68.571	50.602	38.843	1.00	72.77	B	C
ATOM	3753	C	ILE	B	47	-65.901	52.873	39.132	1.00	76.34	B	C
ATOM	3754	O	ILE	B	47	-65.831	54.064	39.463	1.00	75.82	B	O
ATOM	3755	N	LYS	B	48	-65.764	52.460	37.872	1.00	76.96	B	N
ATOM	3756	CB	LYS	B	48	-65.504	53.387	36.776	1.00	77.61	B	C
ATOM	3757	CB	LYS	B	48	-66.449	54.599	36.870	1.00	77.92	B	C
ATOM	3758	CG	LYS	B	48	-67.943	54.223	36.861	1.00	78.44	B	C
ATOM	3759	CD	LYS	B	48	-68.872	55.418	37.110	1.00	79.15	B	C
ATOM	3760	CE	LYS	B	48	-68.838	56.447	35.990	1.00	79.92	B	C
ATOM	3761	NZ	LYS	B	48	-69.666	57.635	36.368	1.00	79.66	B	N
ATOM	3762	C	LYS	B	48	-64.041	53.834	36.817	1.00	77.53	B	C
ATOM	3763	O	LYS	B	48	-63.236	53.404	35.991	1.00	77.94	B	O
ATOM	3764	N	ASP	B	49	-63.695	54.680	37.784	1.00	77.06	B	N
ATOM	3765	CB	ASP	B	49	-62.327	55.179	37.918	1.00	76.51	B	C
ATOM	3766	CB	ASP	B	49	-62.334	56.462	38.764	1.00	78.75	B	C
ATOM	3767	CG	ASP	B	49	-61.714	57.649	38.039	1.00	81.36	B	C
ATOM	3768	OD1	ASP	B	49	-60.532	57.537	37.627	1.00	83.26	B	O
ATOM	3769	OD2	ASP	B	49	-62.397	58.691	37.883	1.00	82.23	B	O
ATOM	3770	C	ASP	B	49	-61.404	54.118	38.544	1.00	75.08	B	C
ATOM	3771	O	ASP	B	49	-60.444	54.444	39.255	1.00	74.35	B	O
ATOM	3772	N	ILE	B	50	-61.711	52.851	38.257	1.00	72.60	B	N
ATOM	3773	CB	ILE	B	50	-60.958	51.696	38.761	1.00	69.88	B	C
ATOM	3774	CB	ILE	B	50	-61.237	50.421	37.919	1.00	70.44	B	C
ATOM	3775	CG2	ILE	B	50	-60.459	49.237	38.480	1.00	68.21	B	C
ATOM	3776	CG1	ILE	B	50	-62.742	50.134	37.898	1.00	70.26	B	C
ATOM	3777	CD1	ILE	B	50	-63.358	49.937	39.266	1.00	70.37	B	C
ATOM	3778	C	ILE	B	50	-59.449	51.902	38.796	1.00	67.93	B	C
ATOM	3779	O	ILE	B	50	-58.778	51.435	39.714	1.00	67.54	B	O
ATOM	3780	N	SER	B	51	-58.914	52.581	37.789	1.00	66.24	B	N
ATOM	3781	CB	SER	B	51	-57.480	52.841	37.740	1.00	65.71	B	C
ATOM	3782	CB	SER	B	51	-57.101	53.485	36.402	1.00	65.57	B	C
ATOM	3783	OG	SER	B	51	-55.777	53.994	36.432	1.00	65.19	B	O
ATOM	3784	C	SER	B	51	-57.032	53.749	38.888	1.00	65.07	B	C
ATOM	3785	O	SER	B	51	-55.925	53.602	39.406	1.00	65.15	B	O
ATOM	3786	N	LYS	B	52	-57.892	54.684	39.285	1.00	63.99	B	N
ATOM	3787	CB	LYS	B	52	-57.558	55.618	40.359	1.00	62.29	B	C
ATOM	3788	CB	LYS	B	52	-58.577	56.747	40.419	1.00	65.11	B	C
ATOM	3789	CG	LYS	B	52	-58.174	57.882	41.364	1.00	68.49	B	C
ATOM	3790	CD	LYS	B	52	-59.067	59.096	41.134	1.00	71.15	B	C
ATOM	3791	CE	LYS	B	52	-58.455	60.373	41.677	1.00	72.63	B	C
ATOM	3792	NZ	LYS	B	52	-59.149	61.571	41.109	1.00	74.71	B	N
ATOM	3793	C	LYS	B	52	-57.485	54.961	41.722	1.00	59.70	B	C
ATOM	3794	O	LYS	B	52	-56.574	55.225	42.507	1.00	59.00	B	O
ATOM	3795	N	SER	B	53	-58.469	54.120	42.008	1.00	56.11	B	N
ATOM	3796	CB	SER	B	53	-58.515	53.415	43.272	1.00	51.68	B	C
ATOM	3797	CB	SER	B	53	-59.784	52.610	43.362	1.00	51.19	B	C
ATOM	3798	OG	SER	B	53	-59.835	51.730	42.263	1.00	52.51	B	O
ATOM	3799	C	SER	B	53	-57.338	52.479	43.360	1.00	49.74	B	C
ATOM	3800	O	SER	B	53	-56.965	52.053	44.447	1.00	50.16	B	O
ATOM	3801	N	LEU	B	54	-56.753	52.147	42.213	1.00	47.87	B	N
ATOM	3802	CB	LEU	B	54	-55.601	51.257	42.205	1.00	45.22	B	C
ATOM	3803	CB	LEU	B	54	-55.392	50.649	40.820	1.00	44.58	B	C
ATOM	3804	CG	LEU	B	54	-56.389	49.631	40.276	1.00	44.49	B	C
ATOM	3805	CD1	LEU	B	54	-55.782	49.027	39.010	1.00	43.80	B	C
ATOM	3806	CD2	LEU	B	54	-56.689	48.538	41.288	1.00	43.31	B	C
ATOM	3807	C	LEU	B	54	-54.327	51.979	42.636	1.00	43.50	B	C
ATOM	3808	O	LEU	B	54	-53.476	51.397	43.290	1.00	41.88	B	O
ATOM	3809	N	THR	B	55	-54.195	53.246	42.271	1.00	42.59	B	N
ATOM	3810	CB	THR	B	55	-53.007	53.990	42.639	1.00	42.97	B	C
ATOM	3811	CB	THR	B	55	-52.990	55.357	41.948	1.00	44.28	B	C
ATOM	3812	OG1	THR	B	55	-52.966	55.157	40.529	1.00	48.33	B	O
ATOM	3813	CG2	THR	B	55	-51.768	56.158	42.365	1.00	43.17	B	C
ATOM	3814	C	THR	B	55	-52.955	54.165	44.149	1.00	42.22	B	C
ATOM	3815	O	THR	B	55	-51.887	54.128	44.753	1.00	43.28	B	O
ATOM	3816	N	ASN	B	56	-54.118	54.350	44.755	1.00	40.31	B	N
ATOM	3817	CB	ASN	B	56	-54.196	54.505	46.184	1.00	38.01	B	C
ATOM	3818	CB	ASN	B	56	-55.521	55.151	46.562	1.00	37.49	B	C

Figure 1

ATOM	3819	CG	ASN	B	56	-55.552	56.629	46.231	1.00	38.76	B	C
ATOM	3820	OD1	ASN	B	56	-56.606	57.208	46.020	1.00	39.50	B	O
ATOM	3821	ND2	ASN	B	56	-54.381	57.248	46.189	1.00	38.71	B	N
ATOM	3822	C	ASN	B	56	-54.021	53.169	46.889	1.00	37.06	B	C
ATOM	3823	O	ASN	B	56	-53.412	53.107	47.939	1.00	38.49	B	O
ATOM	3824	N	LEU	B	57	-54.521	52.085	46.328	1.00	35.61	B	N
ATOM	3825	CB	LEU	B	57	-54.336	50.818	47.004	1.00	36.02	B	C
ATOM	3826	CB	LEU	B	57	-55.105	49.713	46.292	1.00	37.02	B	C
ATOM	3827	CG	LEU	B	57	-56.604	49.656	46.541	1.00	38.86	B	C
ATOM	3828	CD1	LEU	B	57	-57.210	48.765	45.504	1.00	39.91	B	C
ATOM	3829	CD2	LEU	B	57	-56.904	49.160	47.963	1.00	37.65	B	C
ATOM	3830	C	LEU	B	57	-52.870	50.417	47.077	1.00	35.97	B	C
ATOM	3831	O	LEU	B	57	-52.419	49.865	48.071	1.00	36.48	B	O
ATOM	3832	N	SER	B	58	-52.126	50.679	46.011	1.00	35.81	B	N
ATOM	3833	CB	SER	B	58	-50.708	50.329	45.934	1.00	33.52	B	C
ATOM	3834	CB	SER	B	58	-50.179	50.699	44.574	1.00	32.60	B	C
ATOM	3835	OG	SER	B	58	-50.294	52.102	44.442	1.00	33.25	B	O
ATOM	3836	C	SER	B	58	-49.932	51.122	46.942	1.00	33.06	B	C
ATOM	3837	O	SER	B	58	-48.815	50.771	47.313	1.00	32.92	B	O
ATOM	3838	N	LYS	B	59	-50.529	52.232	47.342	1.00	33.47	B	N
ATOM	3839	CB	LYS	B	59	-49.918	53.128	48.295	1.00	34.07	B	C
ATOM	3840	CB	LYS	B	59	-50.606	54.483	48.241	1.00	35.04	B	C
ATOM	3841	CG	LYS	B	59	-49.664	55.584	47.835	1.00	37.82	B	C
ATOM	3842	CD	LYS	B	59	-50.355	56.920	47.670	1.00	40.93	B	C
ATOM	3843	CE	LYS	B	59	-51.103	56.994	46.344	1.00	42.79	B	C
ATOM	3844	NZ	LYS	B	59	-51.708	58.340	46.059	1.00	44.17	B	N
ATOM	3845	C	LYS	B	59	-50.032	52.550	49.673	1.00	34.10	B	C
ATOM	3846	O	LYS	B	59	-49.379	53.011	50.599	1.00	36.05	B	O
ATOM	3847	N	VAL	B	60	-50.855	51.517	49.802	1.00	34.12	B	N
ATOM	3848	CB	VAL	B	60	-51.064	50.886	51.088	1.00	32.76	B	C
ATOM	3849	CB	VAL	B	60	-52.512	50.962	51.513	1.00	31.28	B	C
ATOM	3850	CG1	VAL	B	60	-52.636	50.453	52.927	1.00	32.90	B	C
ATOM	3851	CG2	VAL	B	60	-53.017	52.375	51.394	1.00	28.64	B	C
ATOM	3852	C	VAL	B	60	-50.685	49.434	51.118	1.00	32.78	B	C
ATOM	3853	O	VAL	B	60	-50.397	48.903	52.180	1.00	34.72	B	O
ATOM	3854	N	TYR	B	61	-50.703	48.770	49.976	1.00	32.62	B	N
ATOM	3855	CB	TYR	B	61	-50.359	47.369	49.994	1.00	34.23	B	C
ATOM	3856	CB	TYR	B	61	-51.503	46.543	49.432	1.00	34.62	B	C
ATOM	3857	CG	TYR	B	61	-52.755	46.686	50.254	1.00	37.04	B	C
ATOM	3858	CD1	TYR	B	61	-52.902	46.000	51.451	1.00	36.49	B	C
ATOM	3859	CE1	TYR	B	61	-54.022	46.171	52.233	1.00	38.31	B	C
ATOM	3860	CD2	TYR	B	61	-53.773	47.553	49.862	1.00	37.25	B	C
ATOM	3861	CE2	TYR	B	61	-54.897	47.730	50.640	1.00	37.77	B	C
ATOM	3862	CZ	TYR	B	61	-55.012	47.032	51.830	1.00	38.91	B	C
ATOM	3863	OH	TYR	B	61	-56.113	47.177	52.642	1.00	42.77	B	O
ATOM	3864	C	TYR	B	61	-49.097	47.073	49.246	1.00	35.77	B	C
ATOM	3865	O	TYR	B	61	-48.529	46.001	49.413	1.00	39.48	B	O
ATOM	3866	N	GLY	B	62	-48.649	48.014	48.422	1.00	35.52	B	N
ATOM	3867	CB	GLY	B	62	-47.433	47.793	47.662	1.00	34.04	B	C
ATOM	3868	C	GLY	B	62	-47.652	47.723	46.163	1.00	34.90	B	C
ATOM	3869	O	GLY	B	62	-48.756	47.951	45.690	1.00	34.87	B	O
ATOM	3870	N	PRO	B	63	-46.603	47.407	45.383	1.00	35.94	B	N
ATOM	3871	CD	PRO	B	63	-45.208	47.221	45.871	1.00	34.83	B	C
ATOM	3872	CB	PRO	B	63	-46.667	47.304	43.926	1.00	35.67	B	C
ATOM	3873	CB	PRO	B	63	-45.199	47.389	43.542	1.00	36.44	B	C
ATOM	3874	CG	PRO	B	63	-44.549	46.613	44.624	1.00	32.77	B	C
ATOM	3875	C	PRO	B	63	-47.287	45.996	43.455	1.00	35.56	B	C
ATOM	3876	O	PRO	B	63	-47.406	45.756	42.255	1.00	36.44	B	O
ATOM	3877	N	VAL	B	64	-47.651	45.132	44.397	1.00	35.99	B	N
ATOM	3878	CB	VAL	B	64	-48.227	43.836	44.040	1.00	34.49	B	C
ATOM	3879	CB	VAL	B	64	-47.139	42.779	43.900	1.00	32.22	B	C
ATOM	3880	CG1	VAL	B	64	-47.764	41.443	43.650	1.00	32.63	B	C
ATOM	3881	CG2	VAL	B	64	-46.229	43.137	42.770	1.00	32.93	B	C
ATOM	3882	C	VAL	B	64	-49.259	43.330	45.028	1.00	34.65	B	C
ATOM	3883	O	VAL	B	64	-48.955	42.508	45.877	1.00	33.50	B	O
ATOM	3884	N	PHE	B	65	-50.497	43.786	44.879	1.00	35.99	B	N
ATOM	3885	CB	PHE	B	65	-51.558	43.383	45.797	1.00	38.42	B	C
ATOM	3886	CB	PHE	B	65	-52.052	44.602	46.527	1.00	35.64	B	C
ATOM	3887	CG	PHE	B	65	-52.628	45.633	45.626	1.00	32.42	B	C
ATOM	3888	CD1	PHE	B	65	-53.988	45.655	45.360	1.00	31.25	B	C
ATOM	3889	CD2	PHE	B	65	-51.813	46.605	45.064	1.00	30.81	B	C
ATOM	3890	CE1	PHE	B	65	-54.533	46.642	44.553	1.00	31.87	B	C
ATOM	3891	CE2	PHE	B	65	-52.345	47.595	44.256	1.00	29.62	B	C
ATOM	3892	CZ	PHE	B	65	-53.706	47.616	43.999	1.00	31.13	B	C
ATOM	3893	C	PHE	B	65	-52.747	42.716	45.126	1.00	40.64	B	C

Figure 1

ATOM	3894	O	PHE	B	65	-53.034	42.962	43.953	1.00	42.20	B	O
ATOM	3895	N	THR	B	66	-53.462	41.891	45.879	1.00	41.29	B	N
ATOM	3896	CB	THR	B	66	-54.610	41.220	45.301	1.00	42.21	B	C
ATOM	3897	CB	THR	B	66	-54.746	39.796	45.840	1.00	42.73	B	C
ATOM	3898	OG1	THR	B	66	-54.660	39.819	47.263	1.00	44.68	B	O
ATOM	3899	CG2	THR	B	66	-53.637	38.920	45.296	1.00	43.37	B	C
ATOM	3900	C	THR	B	66	-55.917	41.984	45.514	1.00	42.03	B	C
ATOM	3901	O	THR	B	66	-56.091	42.705	46.484	1.00	41.81	B	O
ATOM	3902	N	LEU	B	67	-56.824	41.854	44.561	1.00	41.92	B	N
ATOM	3903	CB	LEU	B	67	-58.112	42.513	44.635	1.00	40.87	B	C
ATOM	3904	CB	LEU	B	67	-58.178	43.642	43.607	1.00	39.57	B	C
ATOM	3905	CG	LEU	B	67	-58.568	45.025	44.129	1.00	38.82	B	C
ATOM	3906	CD1	LEU	B	67	-57.890	45.310	45.460	1.00	38.76	B	C
ATOM	3907	CD2	LEU	B	67	-58.194	46.086	43.095	1.00	37.38	B	C
ATOM	3908	C	LEU	B	67	-59.145	41.434	44.322	1.00	42.22	B	C
ATOM	3909	O	LEU	B	67	-58.926	40.581	43.444	1.00	42.13	B	O
ATOM	3910	N	TYR	B	68	-60.262	41.457	45.049	1.00	42.85	B	N
ATOM	3911	CB	TYR	B	68	-61.320	40.472	44.827	1.00	42.05	B	C
ATOM	3912	CB	TYR	B	68	-61.908	39.970	46.150	1.00	40.59	B	C
ATOM	3913	CG	TYR	B	68	-61.120	38.851	46.746	1.00	40.19	B	C
ATOM	3914	CD1	TYR	B	68	-59.938	39.099	47.423	1.00	41.94	B	C
ATOM	3915	CE1	TYR	B	68	-59.134	38.054	47.863	1.00	43.96	B	C
ATOM	3916	CD2	TYR	B	68	-61.494	37.532	46.530	1.00	40.51	B	C
ATOM	3917	CE2	TYR	B	68	-60.705	36.479	46.960	1.00	41.58	B	C
ATOM	3918	CZ	TYR	B	68	-59.523	36.744	47.621	1.00	43.34	B	C
ATOM	3919	OH	TYR	B	68	-58.696	35.709	48.003	1.00	46.10	B	O
ATOM	3920	C	TYR	B	68	-62.444	41.025	43.976	1.00	42.18	B	C
ATOM	3921	O	TYR	B	68	-63.272	41.776	44.455	1.00	42.14	B	O
ATOM	3922	N	PHE	B	69	-62.467	40.661	42.703	1.00	43.35	B	N
ATOM	3923	CB	PHE	B	69	-63.534	41.109	41.823	1.00	43.71	B	C
ATOM	3924	CB	PHE	B	69	-63.072	41.161	40.368	1.00	46.53	B	C
ATOM	3925	CG	PHE	B	69	-62.247	42.363	40.042	1.00	49.69	B	C
ATOM	3926	CD1	PHE	B	69	-60.945	42.477	40.516	1.00	51.37	B	C
ATOM	3927	CD2	PHE	B	69	-62.775	43.389	39.268	1.00	50.66	B	C
ATOM	3928	CE1	PHE	B	69	-60.175	43.593	40.225	1.00	52.28	B	C
ATOM	3929	CE2	PHE	B	69	-62.015	44.514	38.969	1.00	52.12	B	C
ATOM	3930	CZ	PHE	B	69	-60.711	44.617	39.448	1.00	52.97	B	C
ATOM	3931	C	PHE	B	69	-64.584	40.031	41.991	1.00	42.86	B	C
ATOM	3932	O	PHE	B	69	-64.427	38.918	41.484	1.00	42.04	B	O
ATOM	3933	N	GLY	B	70	-65.639	40.362	42.726	1.00	41.78	B	N
ATOM	3934	CB	GLY	B	70	-66.685	39.401	42.985	1.00	41.41	B	C
ATOM	3935	C	GLY	B	70	-66.083	38.352	43.890	1.00	42.27	B	C
ATOM	3936	O	GLY	B	70	-65.698	38.639	45.022	1.00	41.45	B	O
ATOM	3937	N	LEU	B	71	-65.993	37.124	43.405	1.00	43.98	B	N
ATOM	3938	CB	LEU	B	71	-65.388	36.088	44.218	1.00	45.66	B	C
ATOM	3939	CB	LEU	B	71	-66.241	34.838	44.242	1.00	47.11	B	C
ATOM	3940	CG	LEU	B	71	-67.248	34.711	45.375	1.00	48.48	B	C
ATOM	3941	CD1	LEU	B	71	-68.566	35.408	45.003	1.00	49.74	B	C
ATOM	3942	CD2	LEU	B	71	-67.468	33.238	45.614	1.00	48.94	B	C
ATOM	3943	C	LEU	B	71	-64.027	35.724	43.683	1.00	46.91	B	C
ATOM	3944	O	LEU	B	71	-63.226	35.122	44.397	1.00	46.85	B	O
ATOM	3945	N	LYS	B	72	-63.773	36.078	42.422	1.00	48.57	B	N
ATOM	3946	CB	LYS	B	72	-62.492	35.781	41.791	1.00	49.18	B	C
ATOM	3947	CB	LYS	B	72	-62.569	35.866	40.255	1.00	51.15	B	C
ATOM	3948	CG	LYS	B	72	-63.165	34.617	39.547	1.00	57.01	B	C
ATOM	3949	CD	LYS	B	72	-62.208	33.399	39.470	1.00	59.46	B	C
ATOM	3950	CE	LYS	B	72	-62.834	32.224	38.690	1.00	61.14	B	C
ATOM	3951	NZ	LYS	B	72	-61.840	31.197	38.242	1.00	64.01	B	N
ATOM	3952	C	LYS	B	72	-61.410	36.708	42.287	1.00	48.27	B	C
ATOM	3953	O	LYS	B	72	-61.619	37.911	42.475	1.00	47.85	B	O
ATOM	3954	N	PRO	B	73	-60.230	36.144	42.533	1.00	47.60	B	N
ATOM	3955	CD	PRO	B	73	-59.973	34.696	42.649	1.00	47.17	B	C
ATOM	3956	CB	PRO	B	73	-59.091	36.915	43.012	1.00	46.60	B	C
ATOM	3957	CB	PRO	B	73	-58.384	35.917	43.907	1.00	46.28	B	C
ATOM	3958	CG	PRO	B	73	-58.539	34.648	43.117	1.00	47.65	B	C
ATOM	3959	C	PRO	B	73	-58.231	37.342	41.826	1.00	45.81	B	C
ATOM	3960	O	PRO	B	73	-57.989	36.549	40.912	1.00	46.17	B	O
ATOM	3961	N	ILE	B	74	-57.826	38.589	41.810	1.00	15.00	B	N
ATOM	3962	CB	ILE	B	74	-56.933	39.082	40.768	1.00	15.00	B	C
ATOM	3963	CB	ILE	B	74	-57.694	39.947	39.743	1.00	15.00	B	C
ATOM	3964	CG2	ILE	B	74	-56.725	40.528	38.726	1.00	15.00	B	C
ATOM	3965	CG1	ILE	B	74	-58.767	39.113	39.043	1.00	15.00	B	C
ATOM	3966	CD1	ILE	B	74	-59.819	39.938	38.333	1.00	15.00	B	C
ATOM	3967	C	ILE	B	74	-55.799	39.909	41.362	1.00	15.00	B	C
ATOM	3968	O	ILE	B	74	-56.047	40.715	42.270	1.00	42.66	B	O

Figure 1

ATOM	3969	N	VAL	B	75	-54.563	39.622	40.990	1.00	40.55	B	N
ATOM	3970	CB	VAL	B	75	-53.430	40.355	41.554	1.00	38.38	B	C
ATOM	3971	CB	VAL	B	75	-52.190	39.429	41.761	1.00	37.71	B	C
ATOM	3972	CG1	VAL	B	75	-52.617	37.985	41.826	1.00	37.11	B	C
ATOM	3973	CG2	VAL	B	75	-51.183	39.631	40.674	1.00	40.46	B	C
ATOM	3974	C	VAL	B	75	-53.094	41.518	40.617	1.00	36.26	B	C
ATOM	3975	O	VAL	B	75	-53.236	41.395	39.406	1.00	36.06	B	O
ATOM	3976	N	VAL	B	76	-52.670	42.645	41.184	1.00	34.78	B	N
ATOM	3977	CB	VAL	B	76	-52.315	43.838	40.399	1.00	33.20	B	C
ATOM	3978	CB	VAL	B	76	-53.116	45.086	40.893	1.00	31.13	B	C
ATOM	3979	CG1	VAL	B	76	-52.653	46.335	40.175	1.00	28.87	B	C
ATOM	3980	CG2	VAL	B	76	-54.598	44.876	40.673	1.00	30.70	B	C
ATOM	3981	C	VAL	B	76	-50.811	44.167	40.474	1.00	33.50	B	C
ATOM	3982	O	VAL	B	76	-50.162	43.912	41.479	1.00	35.00	B	O
ATOM	3983	N	LEU	B	77	-50.260	44.726	39.402	1.00	32.90	B	N
ATOM	3984	CB	LEU	B	77	-48.849	45.112	39.368	1.00	31.15	B	C
ATOM	3985	CB	LEU	B	77	-48.160	44.465	38.177	1.00	30.85	B	C
ATOM	3986	CG	LEU	B	77	-48.289	42.948	38.046	1.00	30.92	B	C
ATOM	3987	CD1	LEU	B	77	-47.680	42.522	36.741	1.00	29.17	B	C
ATOM	3988	CD2	LEU	B	77	-47.625	42.240	39.217	1.00	32.03	B	C
ATOM	3989	C	LEU	B	77	-48.886	46.623	39.185	1.00	30.72	B	C
ATOM	3990	O	LEU	B	77	-49.523	47.125	38.252	1.00	30.30	B	O
ATOM	3991	N	HIS	B	78	-48.194	47.364	40.037	1.00	29.81	B	N
ATOM	3992	CB	HIS	B	78	-48.309	48.798	39.896	1.00	30.11	B	C
ATOM	3993	CB	HIS	B	78	-48.888	49.388	41.180	1.00	29.33	B	C
ATOM	3994	CG	HIS	B	78	-49.522	50.730	40.993	1.00	27.47	B	C
ATOM	3995	CD2	HIS	B	78	-50.774	51.078	40.616	1.00	27.87	B	C
ATOM	3996	ND1	HIS	B	78	-48.834	51.908	41.170	1.00	28.24	B	N
ATOM	3997	CE1	HIS	B	78	-49.634	52.928	40.909	1.00	29.31	B	C
ATOM	3998	NE2	HIS	B	78	-50.817	52.451	40.570	1.00	29.70	B	N
ATOM	3999	C	HIS	B	78	-47.067	49.554	39.468	1.00	30.91	B	C
ATOM	4000	O	HIS	B	78	-47.121	50.441	38.610	1.00	27.66	B	O
ATOM	4001	N	GLY	B	79	-45.937	49.221	40.047	1.00	32.22	B	N
ATOM	4002	CB	GLY	B	79	-44.766	49.932	39.613	1.00	36.10	B	C
ATOM	4003	C	GLY	B	79	-44.425	49.574	38.183	1.00	36.69	B	C
ATOM	4004	O	GLY	B	79	-45.101	48.765	37.541	1.00	36.46	B	O
ATOM	4005	N	TYR	B	80	-43.365	50.221	37.711	1.00	38.55	B	N
ATOM	4006	CB	TYR	B	80	-42.777	50.022	36.402	1.00	38.23	B	C
ATOM	4007	CB	TYR	B	80	-41.875	51.202	36.017	1.00	37.73	B	C
ATOM	4008	CG	TYR	B	80	-40.954	50.861	34.868	1.00	37.09	B	C
ATOM	4009	CD1	TYR	B	80	-41.456	50.732	33.577	1.00	38.84	B	C
ATOM	4010	CE1	TYR	B	80	-40.669	50.230	32.536	1.00	36.51	B	C
ATOM	4011	CD2	TYR	B	80	-39.627	50.501	35.085	1.00	35.77	B	C
ATOM	4012	CE2	TYR	B	80	-38.835	49.996	34.045	1.00	34.53	B	C
ATOM	4013	CZ	TYR	B	80	-39.366	49.856	32.786	1.00	34.66	B	C
ATOM	4014	OH	TYR	B	80	-38.629	49.264	31.798	1.00	34.47	B	O
ATOM	4015	C	TYR	B	80	-41.886	48.829	36.668	1.00	38.94	B	C
ATOM	4016	O	TYR	B	80	-41.735	47.959	35.832	1.00	38.25	B	O
ATOM	4017	N	GLU	B	81	-41.288	48.801	37.854	1.00	41.35	B	N
ATOM	4018	CB	GLU	B	81	-40.415	47.704	38.207	1.00	44.24	B	C
ATOM	4019	CB	GLU	B	81	-39.703	47.966	39.523	1.00	47.08	B	C
ATOM	4020	CG	GLU	B	81	-39.002	49.285	39.615	1.00	53.37	B	C
ATOM	4021	CD	GLU	B	81	-38.344	49.488	40.983	1.00	59.14	B	C
ATOM	4022	OE1	GLU	B	81	-37.311	48.814	41.267	1.00	62.35	B	O
ATOM	4023	OE2	GLU	B	81	-38.865	50.317	41.782	1.00	61.02	B	O
ATOM	4024	C	GLU	B	81	-41.249	46.456	38.346	1.00	44.31	B	C
ATOM	4025	O	GLU	B	81	-40.754	45.358	38.141	1.00	45.46	B	O
ATOM	4026	N	ALB	B	82	-42.520	46.613	38.688	1.00	44.52	B	N
ATOM	4027	CB	ALB	B	82	-43.365	45.439	38.853	1.00	43.93	B	C
ATOM	4028	CB	ALB	B	82	-44.501	45.739	39.788	1.00	45.87	B	C
ATOM	4029	C	ALB	B	82	-43.899	44.971	37.523	1.00	44.00	B	C
ATOM	4030	O	ALB	B	82	-43.972	43.779	37.267	1.00	43.01	B	O
ATOM	4031	N	VAL	B	83	-44.274	45.915	36.672	1.00	44.66	B	N
ATOM	4032	CB	VAL	B	83	-44.797	45.558	35.370	1.00	46.36	B	C
ATOM	4033	CB	VAL	B	83	-45.450	46.773	34.677	1.00	46.39	B	C
ATOM	4034	CG1	VAL	B	83	-46.003	46.375	33.320	1.00	47.69	B	C
ATOM	4035	CG2	VAL	B	83	-46.563	47.322	35.543	1.00	45.66	B	C
ATOM	4036	C	VAL	B	83	-43.666	45.023	34.503	1.00	47.65	B	C
ATOM	4037	O	VAL	B	83	-43.791	43.960	33.886	1.00	47.84	B	O
ATOM	4038	N	LYS	B	84	-42.559	45.758	34.475	1.00	49.08	B	N
ATOM	4039	CB	LYS	B	84	-41.393	45.381	33.682	1.00	51.22	B	C
ATOM	4040	CB	LYS	B	84	-40.284	46.428	33.866	1.00	53.13	B	C
ATOM	4041	CG	LYS	B	84	-38.856	45.903	33.907	1.00	56.14	B	C
ATOM	4042	CD	LYS	B	84	-38.356	45.303	32.601	1.00	58.80	B	C
ATOM	4043	CE	LYS	B	84	-37.024	44.550	32.861	1.00	61.75	B	C

Figure 1

ATOM	4044	NZ	LYS	B	84	-36.309	44.049	31.648	1.00	62.41	B	N
ATOM	4045	C	LYS	B	84	-40.882	43.994	34.026	1.00	50.96	B	C
ATOM	4046	O	LYS	B	84	-40.693	43.156	33.142	1.00	51.75	B	O
ATOM	4047	N	GLU	B	85	-40.660	43.752	35.311	1.00	50.76	B	N
ATOM	4048	CB	GLU	B	85	-40.154	42.465	35.766	1.00	51.17	B	C
ATOM	4049	CB	GLU	B	85	-40.136	42.423	37.291	1.00	52.54	B	C
ATOM	4050	CG	GLU	B	85	-39.368	41.255	37.841	1.00	55.78	B	C
ATOM	4051	CD	GLU	B	85	-39.361	41.210	39.362	1.00	58.01	B	C
ATOM	4052	OE1	GLU	B	85	-39.147	42.272	40.000	1.00	58.09	B	O
ATOM	4053	OE2	GLU	B	85	-39.558	40.103	39.920	1.00	59.66	B	O
ATOM	4054	C	GLU	B	85	-41.014	41.322	35.251	1.00	50.59	B	C
ATOM	4055	O	GLU	B	85	-40.537	40.408	34.580	1.00	50.57	B	O
ATOM	4056	N	ALB	B	86	-42.298	41.401	35.578	1.00	50.32	B	N
ATOM	4057	CB	ALB	B	86	-43.289	40.399	35.213	1.00	48.53	B	C
ATOM	4058	CB	ALB	B	86	-44.575	40.666	35.979	1.00	47.44	B	C
ATOM	4059	C	ALB	B	86	-43.592	40.291	33.732	1.00	48.14	B	C
ATOM	4060	O	ALB	B	86	-43.837	39.198	33.236	1.00	48.91	B	O
ATOM	4061	N	LEU	B	87	-43.584	41.409	33.016	1.00	48.20	B	N
ATOM	4062	CB	LEU	B	87	-43.900	41.366	31.593	1.00	47.61	B	C
ATOM	4063	CB	LEU	B	87	-44.618	42.643	31.172	1.00	45.68	B	C
ATOM	4064	CG	LEU	B	87	-46.083	42.756	31.607	1.00	43.63	B	C
ATOM	4065	CD1	LEU	B	87	-46.691	43.976	30.924	1.00	41.82	B	C
ATOM	4066	CD2	LEU	B	87	-46.851	41.486	31.236	1.00	40.01	B	C
ATOM	4067	C	LEU	B	87	-42.726	41.125	30.672	1.00	48.25	B	C
ATOM	4068	O	LEU	B	87	-42.910	40.800	29.500	1.00	48.33	B	O
ATOM	4069	N	ILE	B	88	-41.515	41.264	31.200	1.00	15.00	B	N
ATOM	4070	CB	ILE	B	88	-40.340	41.048	30.365	1.00	15.00	B	C
ATOM	4071	CB	ILE	B	88	-39.484	42.327	30.262	1.00	15.00	B	C
ATOM	4072	CG2	ILE	B	88	-38.218	42.047	29.469	1.00	15.00	B	C
ATOM	4073	CG1	ILE	B	88	-40.290	43.446	29.601	1.00	15.00	B	C
ATOM	4074	CD1	ILE	B	88	-39.708	44.827	29.815	1.00	15.00	B	C
ATOM	4075	C	ILE	B	88	-39.474	39.922	30.919	1.00	15.00	B	C
ATOM	4076	O	ILE	B	88	-39.072	39.031	30.156	1.00	52.40	B	O
ATOM	4077	N	ASP	B	89	-39.179	39.931	32.213	1.00	53.28	B	N
ATOM	4078	CB	ASP	B	89	-38.373	38.869	32.806	1.00	55.38	B	C
ATOM	4079	CB	ASP	B	89	-37.946	39.230	34.226	1.00	56.01	B	C
ATOM	4080	CG	ASP	B	89	-37.034	40.447	34.278	1.00	58.43	B	C
ATOM	4081	OD1	ASP	B	89	-36.509	40.737	35.378	1.00	60.43	B	O
ATOM	4082	OD2	ASP	B	89	-36.841	41.112	33.238	1.00	59.05	B	O
ATOM	4083	C	ASP	B	89	-39.135	37.542	32.830	1.00	56.46	B	C
ATOM	4084	O	ASP	B	89	-38.546	36.483	32.651	1.00	58.54	B	O
ATOM	4085	N	LEU	B	90	-40.442	37.585	33.062	1.00	56.79	B	N
ATOM	4086	CB	LEU	B	90	-41.221	36.357	33.080	1.00	56.57	B	C
ATOM	4087	CB	LEU	B	90	-41.904	36.165	34.434	1.00	57.40	B	C
ATOM	4088	CG	LEU	B	90	-41.019	35.905	35.661	1.00	58.05	B	C
ATOM	4089	CD1	LEU	B	90	-40.331	37.190	36.086	1.00	58.41	B	C
ATOM	4090	CD2	LEU	B	90	-41.874	35.366	36.807	1.00	57.11	B	C
ATOM	4091	C	LEU	B	90	-42.265	36.382	31.974	1.00	56.89	B	C
ATOM	4092	O	LEU	B	90	-43.382	35.896	32.143	1.00	56.81	B	O
ATOM	4093	N	GLY	B	91	-41.883	36.946	30.835	1.00	57.35	B	N
ATOM	4094	CB	GLY	B	91	-42.781	37.045	29.696	1.00	58.46	B	C
ATOM	4095	C	GLY	B	91	-43.641	35.829	29.382	1.00	58.23	B	C
ATOM	4096	O	GLY	B	91	-44.798	35.982	29.005	1.00	59.77	B	O
ATOM	4097	N	GLU	B	92	-43.092	34.626	29.501	1.00	57.74	B	N
ATOM	4098	CB	GLU	B	92	-43.889	33.447	29.217	1.00	57.73	B	C
ATOM	4099	CB	GLU	B	92	-43.008	32.227	28.915	1.00	57.90	B	C
ATOM	4100	CG	GLU	B	92	-42.752	31.975	27.427	1.00	59.10	B	C
ATOM	4101	CD	GLU	B	92	-44.028	31.661	26.644	1.00	59.97	B	C
ATOM	4102	OE1	GLU	B	92	-44.750	30.713	27.030	1.00	61.50	B	O
ATOM	4103	OE2	GLU	B	92	-44.303	32.363	25.642	1.00	58.37	B	O
ATOM	4104	C	GLU	B	92	-44.798	33.134	30.392	1.00	57.25	B	C
ATOM	4105	O	GLU	B	92	-45.928	32.681	30.213	1.00	57.44	B	O
ATOM	4106	N	GLU	B	93	-44.320	33.381	31.601	1.00	56.15	B	N
ATOM	4107	CB	GLU	B	93	-45.135	33.087	32.763	1.00	55.91	B	C
ATOM	4108	CB	GLU	B	93	-44.298	33.183	34.029	1.00	56.89	B	C
ATOM	4109	CG	GLU	B	93	-43.237	32.105	34.113	1.00	59.84	B	C
ATOM	4110	CD	GLU	B	93	-42.007	32.420	33.280	1.00	61.30	B	C
ATOM	4111	OE1	GLU	B	93	-42.124	32.550	32.040	1.00	62.53	B	O
ATOM	4112	OE2	GLU	B	93	-40.914	32.541	33.874	1.00	61.84	B	O
ATOM	4113	C	GLU	B	93	-46.336	34.011	32.845	1.00	55.23	B	C
ATOM	4114	O	GLU	B	93	-47.413	33.608	33.284	1.00	55.21	B	O
ATOM	4115	N	PHE	B	94	-46.146	35.248	32.405	1.00	54.04	B	N
ATOM	4116	CB	PHE	B	94	-47.204	36.245	32.420	1.00	52.77	B	C
ATOM	4117	CB	PHE	B	94	-46.680	37.542	33.049	1.00	51.30	B	C
ATOM	4118	CG	PHE	B	94	-46.625	37.514	34.553	1.00	50.02	B	C

Figure 1

ATOM	4119	CD1	PHE	B	94	-47.769	37.759	35.302	1.00	48.70	B	C
ATOM	4120	CD2	PHE	B	94	-45.433	37.243	35.219	1.00	49.37	B	C
ATOM	4121	CE1	PHE	B	94	-47.730	37.736	36.693	1.00	48.96	B	C
ATOM	4122	CE2	PHE	B	94	-45.384	37.217	36.610	1.00	48.23	B	C
ATOM	4123	CZ	PHE	B	94	-46.534	37.464	37.348	1.00	48.49	B	C
ATOM	4124	C	PHE	B	94	-47.700	36.537	31.012	1.00	53.14	B	C
ATOM	4125	O	PHE	B	94	-47.385	37.576	30.462	1.00	54.57	B	O
ATOM	4126	N	SER	B	95	-48.474	35.639	30.418	1.00	53.67	B	N
ATOM	4127	CB	SER	B	95	-48.960	35.894	29.069	1.00	54.25	B	C
ATOM	4128	CB	SER	B	95	-47.983	35.316	28.060	1.00	52.74	B	C
ATOM	4129	OG	SER	B	95	-47.630	34.003	28.429	1.00	53.09	B	O
ATOM	4130	C	SER	B	95	-50.364	35.372	28.790	1.00	55.98	B	C
ATOM	4131	O	SER	B	95	-50.710	35.100	27.639	1.00	55.73	B	O
ATOM	4132	N	GLY	B	96	-51.174	35.264	29.841	1.00	57.52	B	N
ATOM	4133	CB	GLY	B	96	-52.536	34.793	29.686	1.00	59.25	B	C
ATOM	4134	C	GLY	B	96	-53.528	35.922	29.455	1.00	60.80	B	C
ATOM	4135	O	GLY	B	96	-53.135	37.016	29.067	1.00	60.60	B	O
ATOM	4136	N	ARG	B	97	-54.814	35.659	29.701	1.00	61.73	B	N
ATOM	4137	CB	ARG	B	97	-55.862	36.650	29.499	1.00	62.05	B	C
ATOM	4138	CB	ARG	B	97	-56.641	36.319	28.227	1.00	62.87	B	C
ATOM	4139	CG	ARG	B	97	-55.776	36.034	27.007	1.00	62.95	B	C
ATOM	4140	CD	ARG	B	97	-55.019	34.684	27.098	1.00	65.51	B	C
ATOM	4141	NE	ARG	B	97	-55.920	33.529	27.225	1.00	65.59	B	N
ATOM	4142	CZ	ARG	B	97	-55.604	32.268	26.930	1.00	63.42	B	C
ATOM	4143	NH1	ARG	B	97	-54.395	31.948	26.479	1.00	60.91	B	N
ATOM	4144	NH2	ARG	B	97	-56.517	31.325	27.079	1.00	63.25	B	N
ATOM	4145	C	ARG	B	97	-56.806	36.660	30.703	1.00	62.86	B	C
ATOM	4146	O	ARG	B	97	-56.805	37.597	31.504	1.00	62.89	B	O
ATOM	4147	N	GLY	B	98	-57.632	35.621	30.807	1.00	64.88	B	N
ATOM	4148	CB	GLY	B	98	-58.545	35.488	31.934	1.00	66.10	B	C
ATOM	4149	C	GLY	B	98	-59.945	36.065	31.879	1.00	66.56	B	C
ATOM	4150	O	GLY	B	98	-60.315	36.800	32.783	1.00	68.28	B	O
ATOM	4151	N	ILE	B	99	-60.743	35.730	30.869	1.00	65.66	B	N
ATOM	4152	CB	ILE	B	99	-62.094	36.271	30.811	1.00	63.38	B	C
ATOM	4153	CB	ILE	B	99	-62.048	37.830	31.087	1.00	64.27	B	C
ATOM	4154	CG2	ILE	B	99	-62.425	38.658	29.834	1.00	62.63	B	C
ATOM	4155	CG1	ILE	B	99	-62.909	38.157	32.319	1.00	61.57	B	C
ATOM	4156	CD1	ILE	B	99	-64.368	37.771	32.228	1.00	61.14	B	C
ATOM	4157	C	ILE	B	99	-62.802	35.937	29.491	1.00	61.40	B	C
ATOM	4158	O	ILE	B	99	-62.155	35.616	28.483	1.00	62.17	B	O
ATOM	4159	N	PHE	B	100	-64.136	35.984	29.520	1.00	59.26	B	N
ATOM	4160	CB	PHE	B	100	-64.954	35.686	28.340	1.00	60.28	B	C
ATOM	4161	CB	PHE	B	100	-65.957	34.523	28.615	1.00	58.70	B	C
ATOM	4162	CG	PHE	B	100	-65.413	33.421	29.492	1.00	58.62	B	C
ATOM	4163	CD1	PHE	B	100	-65.439	33.534	30.884	1.00	56.04	B	C
ATOM	4164	CD2	PHE	B	100	-64.816	32.299	28.926	1.00	58.09	B	C
ATOM	4165	CE1	PHE	B	100	-64.870	32.532	31.701	1.00	57.49	B	C
ATOM	4166	CE2	PHE	B	100	-64.243	31.292	29.728	1.00	59.49	B	C
ATOM	4167	CZ	PHE	B	100	-64.267	31.412	31.120	1.00	59.34	B	C
ATOM	4168	C	PHE	B	100	-65.739	36.933	27.906	1.00	60.52	B	C
ATOM	4169	O	PHE	B	100	-66.898	36.762	27.449	1.00	63.21	B	O
ATOM	4170	OXT	PHE	B	100	-65.181	38.050	28.023	1.00	61.69	B	O
ATOM	4171	CB	PHE	B	110	-60.462	31.235	17.637	1.00	68.08	B	C
ATOM	4172	CG	PHE	B	110	-60.211	29.775	17.811	1.00	71.17	B	C
ATOM	4173	CD1	PHE	B	110	-59.122	29.328	18.558	1.00	71.98	B	C
ATOM	4174	CD2	PHE	B	110	-61.058	28.840	17.222	1.00	71.46	B	C
ATOM	4175	CE1	PHE	B	110	-58.878	27.968	18.716	1.00	72.74	B	C
ATOM	4176	CE2	PHE	B	110	-60.823	27.483	17.372	1.00	72.95	B	C
ATOM	4177	CZ	PHE	B	110	-59.731	27.042	18.122	1.00	73.51	B	C
ATOM	4178	C	PHE	B	110	-60.070	33.430	18.665	1.00	65.80	B	C
ATOM	4179	O	PHE	B	110	-60.432	34.369	19.385	1.00	67.80	B	O
ATOM	4180	N	PHE	B	110	-61.850	31.923	19.575	1.00	66.06	B	N
ATOM	4181	CB	PHE	B	110	-60.500	32.011	18.947	1.00	66.01	B	C
ATOM	4182	N	GLY	B	111	-59.287	33.579	17.605	1.00	64.08	B	N
ATOM	4183	CB	GLY	B	111	-58.800	34.887	17.227	1.00	62.26	B	C
ATOM	4184	C	GLY	B	111	-57.420	35.108	17.804	1.00	60.73	B	C
ATOM	4185	O	GLY	B	111	-56.833	34.213	18.416	1.00	60.39	B	O
ATOM	4186	N	ILE	B	112	-56.887	36.301	17.589	1.00	59.19	B	N
ATOM	4187	CB	ILE	B	112	-55.574	36.620	18.105	1.00	57.54	B	C
ATOM	4188	CB	ILE	B	112	-54.998	37.869	17.445	1.00	57.93	B	C
ATOM	4189	CG2	ILE	B	112	-53.698	38.238	18.118	1.00	58.78	B	C
ATOM	4190	CG1	ILE	B	112	-54.782	37.627	15.951	1.00	58.37	B	C
ATOM	4191	CD1	ILE	B	112	-54.313	38.863	15.198	1.00	59.83	B	C
ATOM	4192	C	ILE	B	112	-55.703	36.862	19.599	1.00	56.31	B	C
ATOM	4193	O	ILE	B	112	-54.930	36.321	20.387	1.00	56.32	B	O

Figure 1

ATOM	4194	N	VAL	B	113	-56.667	37.686	19.995	1.00	54.82	B	N
ATOM	4195	CB	VAL	B	113	-56.861	37.944	21.416	1.00	53.44	B	C
ATOM	4196	CB	VAL	B	113	-57.412	39.366	21.721	1.00	51.44	B	C
ATOM	4197	CG1	VAL	B	113	-58.657	39.656	20.931	1.00	47.97	B	C
ATOM	4198	CG2	VAL	B	113	-57.693	39.487	23.210	1.00	50.28	B	C
ATOM	4199	C	VAL	B	113	-57.830	36.942	21.982	1.00	54.92	B	C
ATOM	4200	O	VAL	B	113	-58.494	36.224	21.239	1.00	57.43	B	O
ATOM	4201	N	PHE	B	114	-57.917	36.896	23.303	1.00	55.01	B	N
ATOM	4202	CB	PHE	B	114	-58.821	35.976	23.965	1.00	54.91	B	C
ATOM	4203	CB	PHE	B	114	-60.271	36.285	23.611	1.00	51.81	B	C
ATOM	4204	CG	PHE	B	114	-60.749	37.576	24.126	1.00	50.25	B	C
ATOM	4205	CD1	PHE	B	114	-61.330	38.503	23.275	1.00	50.28	B	C
ATOM	4206	CD2	PHE	B	114	-60.600	37.882	25.463	1.00	50.54	B	C
ATOM	4207	CE1	PHE	B	114	-61.749	39.726	23.753	1.00	50.20	B	C
ATOM	4208	CE2	PHE	B	114	-61.010	39.094	25.958	1.00	51.24	B	C
ATOM	4209	CZ	PHE	B	114	-61.588	40.026	25.102	1.00	52.11	B	C
ATOM	4210	C	PHE	B	114	-58.556	34.566	23.526	1.00	56.67	B	C
ATOM	4211	O	PHE	B	114	-59.502	33.822	23.338	1.00	58.74	B	O
ATOM	4212	N	SER	B	115	-57.307	34.167	23.335	1.00	58.18	B	N
ATOM	4213	CB	SER	B	115	-57.115	32.794	22.906	1.00	60.31	B	C
ATOM	4214	CB	SER	B	115	-56.866	32.747	21.393	1.00	59.40	B	C
ATOM	4215	OG	SER	B	115	-55.501	32.576	21.089	1.00	61.82	B	O
ATOM	4216	C	SER	B	115	-56.060	31.992	23.663	1.00	62.32	B	C
ATOM	4217	O	SER	B	115	-55.031	32.524	24.065	1.00	60.79	B	O
ATOM	4218	N	ASN	B	116	-56.359	30.704	23.868	1.00	66.51	B	N
ATOM	4219	CB	ASN	B	116	-55.482	29.765	24.581	1.00	69.32	B	C
ATOM	4220	CB	ASN	B	116	-56.006	28.313	24.445	1.00	70.77	B	C
ATOM	4221	CG	ASN	B	116	-55.726	27.445	25.690	1.00	72.73	B	C
ATOM	4222	OD1	ASN	B	116	-54.627	27.476	26.267	1.00	73.36	B	O
ATOM	4223	ND2	ASN	B	116	-56.723	26.652	26.088	1.00	73.16	B	N
ATOM	4224	C	ASN	B	116	-54.096	29.866	23.964	1.00	69.09	B	C
ATOM	4225	O	ASN	B	116	-53.938	29.777	22.753	1.00	67.03	B	O
ATOM	4226	N	GLY	B	117	-53.083	30.036	24.784	1.00	15.00	B	N
ATOM	4227	CB	GLY	B	117	-51.705	30.201	24.364	1.00	15.00	B	C
ATOM	4228	C	GLY	B	117	-51.345	29.311	23.189	1.00	15.00	B	C
ATOM	4229	O	GLY	B	117	-50.742	29.811	22.202	1.00	71.45	B	O
ATOM	4230	N	ALB	B	118	-51.589	28.005	23.225	1.00	62.90	B	N
ATOM	4231	CB	ALB	B	118	-51.217	27.093	22.138	1.00	61.34	B	C
ATOM	4232	CB	ALB	B	118	-51.748	25.691	22.441	1.00	61.29	B	C
ATOM	4233	C	ALB	B	118	-51.725	27.571	20.766	1.00	61.36	B	C
ATOM	4234	O	ALB	B	118	-50.940	27.795	19.850	1.00	64.60	B	O
ATOM	4235	N	LYS	B	119	-53.064	27.680	20.626	1.00	15.00	B	N
ATOM	4236	CB	LYS	B	119	-53.648	28.198	19.396	1.00	15.00	B	C
ATOM	4237	CB	LYS	B	119	-55.176	28.146	19.472	1.00	15.00	B	C
ATOM	4238	CG	LYS	B	119	-55.753	26.741	19.427	1.00	15.00	B	C
ATOM	4239	CD	LYS	B	119	-57.272	26.766	19.482	1.00	15.00	B	C
ATOM	4240	CE	LYS	B	119	-57.850	25.360	19.437	1.00	15.00	B	C
ATOM	4241	NZ	LYS	B	119	-59.338	25.369	19.489	1.00	15.00	B	N
ATOM	4242	C	LYS	B	119	-53.193	29.629	19.133	1.00	15.00	B	C
ATOM	4243	O	LYS	B	119	-53.046	30.063	18.024	1.00	62.88	B	O
ATOM	4244	N	TRP	B	120	-53.029	30.320	20.265	1.00	59.37	B	N
ATOM	4245	CB	TRP	B	120	-52.635	31.714	20.238	1.00	54.99	B	C
ATOM	4246	CB	TRP	B	120	-52.593	32.240	21.665	1.00	51.94	B	C
ATOM	4247	CG	TRP	B	120	-52.041	33.598	21.782	1.00	49.03	B	C
ATOM	4248	CD2	TRP	B	120	-50.821	33.961	22.434	1.00	47.45	B	C
ATOM	4249	CE2	TRP	B	120	-50.658	35.353	22.272	1.00	46.75	B	C
ATOM	4250	CE3	TRP	B	120	-49.850	33.248	23.149	1.00	45.26	B	C
ATOM	4251	CD1	TRP	B	120	-52.557	34.744	21.263	1.00	47.88	B	C
ATOM	4252	NE1	TRP	B	120	-51.733	35.804	21.549	1.00	48.19	B	N
ATOM	4253	CZ2	TRP	B	120	-49.560	36.043	22.783	1.00	45.87	B	C
ATOM	4254	CZ3	TRP	B	120	-48.763	33.931	23.656	1.00	45.11	B	C
ATOM	4255	CH2	TRP	B	120	-48.626	35.317	23.475	1.00	45.90	B	C
ATOM	4256	C	TRP	B	120	-51.299	31.916	19.547	1.00	55.50	B	C
ATOM	4257	O	TRP	B	120	-51.200	32.661	18.562	1.00	54.26	B	O
ATOM	4258	N	LYS	B	121	-50.277	31.246	20.068	1.00	55.08	B	N
ATOM	4259	CB	LYS	B	121	-48.927	31.320	19.526	1.00	55.97	B	C
ATOM	4260	CB	LYS	B	121	-48.106	30.126	20.012	1.00	57.28	B	C
ATOM	4261	CG	LYS	B	121	-47.464	30.308	21.379	1.00	60.42	B	C
ATOM	4262	CD	LYS	B	121	-46.284	31.289	21.303	1.00	65.13	B	C
ATOM	4263	CE	LYS	B	121	-45.580	31.483	22.660	1.00	67.60	B	C
ATOM	4264	NZ	LYS	B	121	-44.397	32.417	22.592	1.00	69.23	B	N
ATOM	4265	C	LYS	B	121	-48.933	31.345	18.011	1.00	56.27	B	C
ATOM	4266	O	LYS	B	121	-48.445	32.289	17.384	1.00	56.64	B	O
ATOM	4267	N	GLU	B	122	-49.499	30.306	17.422	1.00	55.63	B	N
ATOM	4268	CB	GLU	B	122	-49.538	30.222	15.983	1.00	55.87	B	C

Figure 1

ATOM	4269	CB	GLU	B	122	-50.161	28.901	15.571	1.00	57.51	B	C
ATOM	4270	CG	GLU	B	122	-49.509	27.745	16.278	1.00	59.95	B	C
ATOM	4271	CD	GLU	B	122	-49.461	26.500	15.431	1.00	62.13	B	C
ATOM	4272	OE1	GLU	B	122	-49.088	25.436	15.974	1.00	64.25	B	O
ATOM	4273	OE2	GLU	B	122	-49.786	26.583	14.224	1.00	62.31	B	O
ATOM	4274	C	GLU	B	122	-50.256	31.380	15.316	1.00	55.35	B	C
ATOM	4275	O	GLU	B	122	-49.649	32.094	14.520	1.00	56.73	B	O
ATOM	4276	N	ILE	B	123	-51.529	31.586	15.646	1.00	53.02	B	N
ATOM	4277	CB	ILE	B	123	-52.298	32.662	15.025	1.00	50.76	B	C
ATOM	4278	CB	ILE	B	123	-53.750	32.704	15.538	1.00	51.04	B	C
ATOM	4279	CG2	ILE	B	123	-54.584	33.659	14.673	1.00	48.91	B	C
ATOM	4280	CG1	ILE	B	123	-54.376	31.317	15.447	1.00	50.62	B	C
ATOM	4281	CD1	ILE	B	123	-54.581	30.857	14.030	1.00	50.22	B	C
ATOM	4282	C	ILE	B	123	-51.697	34.045	15.218	1.00	50.27	B	C
ATOM	4283	O	ILE	B	123	-51.868	34.921	14.374	1.00	50.92	B	O
ATOM	4284	N	ARG	B	124	-51.003	34.267	16.325	1.00	48.30	B	N
ATOM	4285	CB	ARG	B	124	-50.403	35.576	16.541	1.00	46.31	B	C
ATOM	4286	CB	ARG	B	124	-49.978	35.753	17.995	1.00	46.92	B	C
ATOM	4287	CG	ARG	B	124	-49.190	37.026	18.236	1.00	45.73	B	C
ATOM	4288	CD	ARG	B	124	-48.669	37.074	19.656	1.00	46.80	B	C
ATOM	4289	NE	ARG	B	124	-47.859	38.269	19.896	1.00	46.78	B	N
ATOM	4290	CZ	ARG	B	124	-48.348	39.466	20.216	1.00	45.67	B	C
ATOM	4291	NH1	ARG	B	124	-49.658	39.638	20.355	1.00	45.03	B	N
ATOM	4292	NH2	ARG	B	124	-47.526	40.496	20.365	1.00	42.11	B	N
ATOM	4293	C	ARG	B	124	-49.177	35.686	15.672	1.00	45.52	B	C
ATOM	4294	O	ARG	B	124	-48.942	36.708	15.040	1.00	43.86	B	O
ATOM	4295	N	ARG	B	125	-48.401	34.608	15.648	1.00	46.96	B	N
ATOM	4296	CB	ARG	B	125	-47.170	34.554	14.875	1.00	48.34	B	C
ATOM	4297	CB	ARG	B	125	-46.523	33.173	14.995	1.00	51.76	B	C
ATOM	4298	CG	ARG	B	125	-45.173	33.054	14.287	1.00	56.56	B	C
ATOM	4299	CD	ARG	B	125	-45.240	32.141	13.058	1.00	62.17	B	C
ATOM	4300	NE	ARG	B	125	-44.121	32.355	12.124	1.00	67.17	B	N
ATOM	4301	CZ	ARG	B	125	-43.144	31.479	11.881	1.00	69.41	B	C
ATOM	4302	NH1	ARG	B	125	-42.182	31.777	11.007	1.00	69.86	B	N
ATOM	4303	NH2	ARG	B	125	-43.125	30.305	12.507	1.00	70.46	B	N
ATOM	4304	C	ARG	B	125	-47.445	34.860	13.419	1.00	47.60	B	C
ATOM	4305	O	ARG	B	125	-46.758	35.662	12.808	1.00	47.93	B	O
ATOM	4306	N	PHE	B	126	-48.461	34.216	12.870	1.00	46.76	B	N
ATOM	4307	CB	PHE	B	126	-48.831	34.408	11.484	1.00	45.50	B	C
ATOM	4308	CB	PHE	B	126	-49.926	33.414	11.116	1.00	46.21	B	C
ATOM	4309	CG	PHE	B	126	-50.603	33.722	9.830	1.00	45.92	B	C
ATOM	4310	CD1	PHE	B	126	-51.648	34.637	9.782	1.00	46.34	B	C
ATOM	4311	CD2	PHE	B	126	-50.153	33.148	8.654	1.00	44.48	B	C
ATOM	4312	CE1	PHE	B	126	-52.228	34.977	8.579	1.00	47.70	B	C
ATOM	4313	CE2	PHE	B	126	-50.722	33.478	7.450	1.00	44.86	B	C
ATOM	4314	CZ	PHE	B	126	-51.761	34.395	7.405	1.00	46.97	B	C
ATOM	4315	C	PHE	B	126	-49.310	35.820	11.200	1.00	45.10	B	C
ATOM	4316	O	PHE	B	126	-48.940	36.421	10.196	1.00	45.58	B	O
ATOM	4317	N	SER	B	127	-50.155	36.333	12.087	1.00	44.90	B	N
ATOM	4318	CB	SER	B	127	-50.713	37.672	11.957	1.00	43.69	B	C
ATOM	4319	CB	SER	B	127	-51.616	37.979	13.150	1.00	43.27	B	C
ATOM	4320	OG	SER	B	127	-52.721	37.097	13.198	1.00	41.41	B	O
ATOM	4321	C	SER	B	127	-49.619	38.715	11.878	1.00	43.64	B	C
ATOM	4322	O	SER	B	127	-49.639	39.589	11.012	1.00	43.64	B	O
ATOM	4323	N	LEU	B	128	-48.663	38.626	12.790	1.00	43.63	B	N
ATOM	4324	CB	LEU	B	128	-47.571	39.574	12.805	1.00	45.47	B	C
ATOM	4325	CB	LEU	B	128	-46.678	39.314	14.006	1.00	43.12	B	C
ATOM	4326	CG	LEU	B	128	-47.206	39.995	15.270	1.00	41.00	B	C
ATOM	4327	CD1	LEU	B	128	-46.345	39.573	16.422	1.00	39.88	B	C
ATOM	4328	CD2	LEU	B	128	-47.222	41.522	15.112	1.00	38.44	B	C
ATOM	4329	C	LEU	B	128	-46.741	39.597	11.532	1.00	48.12	B	C
ATOM	4330	O	LEU	B	128	-46.417	40.675	11.033	1.00	49.59	B	O
ATOM	4331	N	MET	B	129	-46.397	38.427	10.996	1.00	50.88	B	N
ATOM	4332	CB	MET	B	129	-45.601	38.369	9.772	1.00	52.84	B	C
ATOM	4333	CB	MET	B	129	-45.003	36.980	9.580	1.00	55.20	B	C
ATOM	4334	CG	MET	B	129	-44.102	36.567	10.729	1.00	60.77	B	C
ATOM	4335	SD	MET	B	129	-42.951	35.218	10.324	1.00	66.89	B	S
ATOM	4336	CE	MET	B	129	-44.082	33.944	9.661	1.00	65.46	B	C
ATOM	4337	C	MET	B	129	-46.375	38.771	8.529	1.00	52.57	B	C
ATOM	4338	O	MET	B	129	-45.835	38.768	7.432	1.00	53.90	B	O
ATOM	4339	N	THR	B	130	-47.643	39.118	8.698	1.00	52.46	B	N
ATOM	4340	CB	THR	B	130	-48.450	39.551	7.569	1.00	52.38	B	C
ATOM	4341	CB	THR	B	130	-49.830	38.851	7.528	1.00	53.59	B	C
ATOM	4342	OG1	THR	B	130	-50.597	39.233	8.680	1.00	55.82	B	O
ATOM	4343	CG2	THR	B	130	-49.665	37.331	7.497	1.00	53.91	B	C

Figure 1

ATOM	4344	C	THR	B	130	-48.688	41.041	7.706	1.00	51.33	B	C
ATOM	4345	O	THR	B	130	-48.944	41.723	6.721	1.00	52.08	B	O
ATOM	4346	N	LEU	B	131	-48.617	41.532	8.942	1.00	49.85	B	N
ATOM	4347	CB	LEU	B	131	-48.832	42.946	9.235	1.00	48.34	B	C
ATOM	4348	CB	LEU	B	131	-49.328	43.118	10.666	1.00	47.37	B	C
ATOM	4349	CG	LEU	B	131	-50.834	42.998	10.840	1.00	46.87	B	C
ATOM	4350	CD1	LEU	B	131	-51.198	42.828	12.303	1.00	46.14	B	C
ATOM	4351	CD2	LEU	B	131	-51.481	44.240	10.266	1.00	47.51	B	C
ATOM	4352	C	LEU	B	131	-47.563	43.743	9.036	1.00	47.86	B	C
ATOM	4353	O	LEU	B	131	-47.483	44.912	9.411	1.00	47.61	B	O
ATOM	4354	N	ARG	B	132	-46.565	43.092	8.454	1.00	48.01	B	N
ATOM	4355	CB	ARG	B	132	-45.292	43.733	8.177	1.00	48.97	B	C
ATOM	4356	CB	ARG	B	132	-44.247	42.678	7.833	1.00	51.30	B	C
ATOM	4357	CG	ARG	B	132	-44.180	41.498	8.791	1.00	53.99	B	C
ATOM	4358	CD	ARG	B	132	-43.131	40.516	8.309	1.00	58.79	B	C
ATOM	4359	NE	ARG	B	132	-43.176	40.394	6.848	1.00	63.21	B	N
ATOM	4360	CZ	ARG	B	132	-42.809	39.319	6.153	1.00	64.60	B	C
ATOM	4361	NH1	ARG	B	132	-42.891	39.331	4.829	1.00	65.17	B	N
ATOM	4362	NH2	ARG	B	132	-42.385	38.228	6.778	1.00	65.96	B	N
ATOM	4363	C	ARG	B	132	-45.540	44.625	6.970	1.00	47.80	B	C
ATOM	4364	O	ARG	B	132	-46.305	44.252	6.088	1.00	48.15	B	O
ATOM	4365	N	ASN	B	133	-44.895	45.784	6.911	1.00	46.88	B	N
ATOM	4366	CB	ASN	B	133	-45.099	46.703	5.789	1.00	46.90	B	C
ATOM	4367	CB	ASN	B	133	-44.051	47.819	5.814	1.00	46.63	B	C
ATOM	4368	CG	ASN	B	133	-44.529	49.087	5.119	1.00	47.62	B	C
ATOM	4369	OD1	ASN	B	133	-43.729	49.944	4.752	1.00	49.61	B	O
ATOM	4370	ND2	ASN	B	133	-45.837	49.216	4.947	1.00	47.53	B	N
ATOM	4371	C	ASN	B	133	-45.086	46.031	4.407	1.00	47.39	B	C
ATOM	4372	O	ASN	B	133	-45.635	46.579	3.450	1.00	46.25	B	O
ATOM	4373	N	PHE	B	134	-44.455	44.857	4.314	1.00	49.02	B	N
ATOM	4374	CB	PHE	B	134	-44.362	44.083	3.065	1.00	50.18	B	C
ATOM	4375	CB	PHE	B	134	-42.986	44.259	2.420	1.00	49.20	B	C
ATOM	4376	CG	PHE	B	134	-42.707	45.660	1.972	1.00	49.20	B	C
ATOM	4377	CD1	PHE	B	134	-43.226	46.139	0.774	1.00	49.32	B	C
ATOM	4378	CD2	PHE	B	134	-41.999	46.537	2.795	1.00	48.67	B	C
ATOM	4379	CE1	PHE	B	134	-43.052	47.477	0.410	1.00	48.88	B	C
ATOM	4380	CE2	PHE	B	134	-41.826	47.866	2.439	1.00	46.13	B	C
ATOM	4381	CZ	PHE	B	134	-42.354	48.337	1.250	1.00	47.35	B	C
ATOM	4382	C	PHE	B	134	-44.591	42.598	3.326	1.00	51.73	B	C
ATOM	4383	O	PHE	B	134	-44.219	41.762	2.510	1.00	53.08	B	O
ATOM	4384	N	GLY	B	135	-45.202	42.278	4.462	1.00	52.77	B	N
ATOM	4385	CB	GLY	B	135	-45.447	40.890	4.797	1.00	55.56	B	C
ATOM	4386	C	GLY	B	135	-46.427	40.186	3.875	1.00	58.23	B	C
ATOM	4387	O	GLY	B	135	-46.822	39.051	4.138	1.00	59.36	B	O
ATOM	4388	N	MET	B	136	-46.831	40.848	2.794	1.00	59.36	B	N
ATOM	4389	CB	MET	B	136	-47.769	40.252	1.840	1.00	60.33	B	C
ATOM	4390	CB	MET	B	136	-49.136	40.002	2.506	1.00	58.84	B	C
ATOM	4391	CG	MET	B	136	-49.720	41.200	3.245	1.00	58.09	B	C
ATOM	4392	SD	MET	B	136	-51.281	40.895	4.143	1.00	57.30	B	S
ATOM	4393	CE	MET	B	136	-52.177	42.397	3.776	1.00	54.57	B	C
ATOM	4394	C	MET	B	136	-47.945	41.131	0.602	1.00	61.93	B	C
ATOM	4395	O	MET	B	136	-47.687	42.334	0.644	1.00	62.78	B	O
ATOM	4396	N	GLY	B	137	-48.355	40.519	-0.503	1.00	62.78	B	N
ATOM	4397	CB	GLY	B	137	-48.565	41.259	-1.737	1.00	64.09	B	C
ATOM	4398	C	GLY	B	137	-47.381	42.050	-2.268	1.00	64.96	B	C
ATOM	4399	O	GLY	B	137	-46.219	41.767	-1.969	1.00	65.79	B	O
ATOM	4400	N	LYS	B	138	-47.697	43.046	-3.087	1.00	65.58	B	N
ATOM	4401	CB	LYS	B	138	-46.705	43.929	-3.689	1.00	65.76	B	C
ATOM	4402	CB	LYS	B	138	-46.770	43.862	-5.230	1.00	68.51	B	C
ATOM	4403	CG	LYS	B	138	-46.075	42.645	-5.863	1.00	71.45	B	C
ATOM	4404	CD	LYS	B	138	-45.601	42.931	-7.305	1.00	73.91	B	C
ATOM	4405	CE	LYS	B	138	-46.755	43.305	-8.255	1.00	75.37	B	C
ATOM	4406	NZ	LYS	B	138	-46.285	43.631	-9.647	1.00	75.79	B	N
ATOM	4407	C	LYS	B	138	-47.053	45.338	-3.224	1.00	63.97	B	C
ATOM	4408	O	LYS	B	138	-46.392	46.319	-3.571	1.00	64.44	B	O
ATOM	4409	N	ARG	B	139	-48.118	45.419	-2.439	1.00	60.95	B	N
ATOM	4410	CB	ARG	B	139	-48.595	46.676	-1.904	1.00	57.95	B	C
ATOM	4411	CB	ARG	B	139	-50.112	46.728	-2.057	1.00	57.45	B	C
ATOM	4412	CG	ARG	B	139	-50.736	48.076	-1.787	1.00	58.21	B	C
ATOM	4413	CD	ARG	B	139	-52.180	48.088	-2.262	1.00	58.90	B	C
ATOM	4414	NE	ARG	B	139	-52.857	49.360	-2.017	1.00	60.11	B	N
ATOM	4415	CZ	ARG	B	139	-52.411	50.547	-2.419	1.00	60.54	B	C
ATOM	4416	NH1	ARG	B	139	-53.114	51.635	-2.142	1.00	60.64	B	N
ATOM	4417	NH2	ARG	B	139	-51.266	50.657	-3.084	1.00	61.00	B	N
ATOM	4418	C	ARG	B	139	-48.174	46.690	-0.433	1.00	56.35	B	C

Figure 1

ATOM	4419	O	ARG	B	139	-48.250	45.668	0.241	1.00	56.84	B	O
ATOM	4420	N	SER	B	140	-47.717	47.837	0.058	1.00	53.54	B	N
ATOM	4421	CB	SER	B	140	-47.272	47.961	1.445	1.00	50.13	B	C
ATOM	4422	CB	SER	B	140	-46.096	48.909	1.525	1.00	49.35	B	C
ATOM	4423	OG	SER	B	140	-46.564	50.211	1.217	1.00	48.55	B	O
ATOM	4424	C	SER	B	140	-48.344	48.535	2.348	1.00	48.08	B	C
ATOM	4425	O	SER	B	140	-49.176	49.327	1.913	1.00	48.22	B	O
ATOM	4426	N	ILE	B	141	-48.285	48.166	3.620	1.00	44.92	B	N
ATOM	4427	CB	ILE	B	141	-49.221	48.678	4.603	1.00	41.97	B	C
ATOM	4428	CB	ILE	B	141	-48.834	48.174	5.989	1.00	41.15	B	C
ATOM	4429	CG2	ILE	B	141	-49.594	48.904	7.085	1.00	39.54	B	C
ATOM	4430	CG1	ILE	B	141	-49.109	46.689	6.040	1.00	42.31	B	C
ATOM	4431	CD1	ILE	B	141	-48.735	46.094	7.322	1.00	45.27	B	C
ATOM	4432	C	ILE	B	141	-49.190	50.198	4.585	1.00	40.77	B	C
ATOM	4433	O	ILE	B	141	-50.206	50.857	4.802	1.00	40.02	B	O
ATOM	4434	N	GLU	B	142	-48.016	50.752	4.326	1.00	38.02	B	N
ATOM	4435	CB	GLU	B	142	-47.896	52.181	4.292	1.00	36.75	B	C
ATOM	4436	CB	GLU	B	142	-46.441	52.591	4.241	1.00	37.54	B	C
ATOM	4437	CG	GLU	B	142	-46.280	54.064	4.496	1.00	38.52	B	C
ATOM	4438	CD	GLU	B	142	-44.855	54.494	4.536	1.00	38.04	B	C
ATOM	4439	OE1	GLU	B	142	-44.028	53.760	5.108	1.00	38.75	B	O
ATOM	4440	OE2	GLU	B	142	-44.561	55.579	4.005	1.00	38.20	B	O
ATOM	4441	C	GLU	B	142	-48.619	52.753	3.090	1.00	36.94	B	C
ATOM	4442	O	GLU	B	142	-49.141	53.868	3.131	1.00	34.74	B	O
ATOM	4443	N	ASP	B	143	-48.630	52.000	2.002	1.00	37.02	B	N
ATOM	4444	CB	ASP	B	143	-49.315	52.461	0.815	1.00	38.35	B	C
ATOM	4445	CB	ASP	B	143	-49.085	51.510	-0.339	1.00	41.42	B	C
ATOM	4446	CG	ASP	B	143	-48.028	52.013	-1.272	1.00	45.89	B	C
ATOM	4447	OD1	ASP	B	143	-47.944	53.261	-1.420	1.00	47.43	B	O
ATOM	4448	OD2	ASP	B	143	-47.300	51.172	-1.856	1.00	47.48	B	O
ATOM	4449	C	ASP	B	143	-50.789	52.571	1.080	1.00	38.09	B	C
ATOM	4450	O	ASP	B	143	-51.477	53.411	0.509	1.00	39.21	B	O
ATOM	4451	N	ARG	B	144	-51.259	51.695	1.957	1.00	37.15	B	N
ATOM	4452	CB	ARG	B	144	-52.649	51.635	2.345	1.00	35.62	B	C
ATOM	4453	CB	ARG	B	144	-52.924	50.325	3.051	1.00	35.22	B	C
ATOM	4454	CG	ARG	B	144	-52.418	49.178	2.273	1.00	36.79	B	C
ATOM	4455	CD	ARG	B	144	-53.074	47.872	2.648	1.00	36.64	B	C
ATOM	4456	NE	ARG	B	144	-53.287	47.121	1.417	1.00	37.59	B	N
ATOM	4457	CZ	ARG	B	144	-53.083	45.822	1.275	1.00	38.39	B	C
ATOM	4458	NH1	ARG	B	144	-52.653	45.092	2.296	1.00	39.75	B	N
ATOM	4459	NH2	ARG	B	144	-53.294	45.263	0.097	1.00	39.75	B	N
ATOM	4460	C	ARG	B	144	-52.983	52.779	3.265	1.00	35.95	B	C
ATOM	4461	O	ARG	B	144	-53.976	53.480	3.064	1.00	37.70	B	O
ATOM	4462	N	VAL	B	145	-52.160	52.932	4.286	1.00	15.00	B	N
ATOM	4463	CB	VAL	B	145	-52.387	54.046	5.198	1.00	15.00	B	C
ATOM	4464	CB	VAL	B	145	-51.395	54.015	6.378	1.00	15.00	B	C
ATOM	4465	CG1	VAL	B	145	-51.538	55.276	7.215	1.00	15.00	B	C
ATOM	4466	CG2	VAL	B	145	-51.630	52.777	7.228	1.00	15.00	B	C
ATOM	4467	C	VAL	B	145	-52.246	55.381	4.474	1.00	15.00	B	C
ATOM	4468	O	VAL	B	145	-53.024	56.266	4.643	1.00	32.67	B	O
ATOM	4469	N	GLN	B	146	-51.221	55.409	3.634	1.00	34.18	B	N
ATOM	4470	CB	GLN	B	146	-51.008	56.613	2.861	1.00	35.76	B	C
ATOM	4471	CB	GLN	B	146	-49.748	56.489	2.026	1.00	36.99	B	C
ATOM	4472	CG	GLN	B	146	-48.547	57.111	2.678	1.00	39.76	B	C
ATOM	4473	CD	GLN	B	146	-47.248	56.619	2.100	1.00	41.26	B	C
ATOM	4474	OE1	GLN	B	146	-46.191	57.139	2.423	1.00	44.85	B	O
ATOM	4475	NE2	GLN	B	146	-47.311	55.614	1.245	1.00	41.78	B	N
ATOM	4476	C	GLN	B	146	-52.191	56.851	1.960	1.00	35.69	B	C
ATOM	4477	O	GLN	B	146	-52.577	57.992	1.730	1.00	34.57	B	O
ATOM	4478	N	GLU	B	147	-52.779	55.772	1.459	1.00	36.94	B	N
ATOM	4479	CB	GLU	B	147	-53.907	55.913	0.561	1.00	38.92	B	C
ATOM	4480	CB	GLU	B	147	-54.195	54.620	-0.153	1.00	39.06	B	C
ATOM	4481	CG	GLU	B	147	-55.045	54.871	-1.356	1.00	42.53	B	C
ATOM	4482	CD	GLU	B	147	-56.057	53.794	-1.575	1.00	44.76	B	C
ATOM	4483	OE1	GLU	B	147	-55.898	52.713	-0.973	1.00	46.09	B	O
ATOM	4484	OE2	GLU	B	147	-57.009	54.023	-2.356	1.00	47.73	B	O
ATOM	4485	C	GLU	B	147	-55.156	56.320	1.286	1.00	40.05	B	C
ATOM	4486	O	GLU	B	147	-55.993	57.053	0.756	1.00	40.31	B	O
ATOM	4487	N	GLU	B	148	-55.285	55.808	2.501	1.00	40.90	B	N
ATOM	4488	CB	GLU	B	148	-56.438	56.088	3.318	1.00	40.72	B	C
ATOM	4489	CB	GLU	B	148	-56.492	55.096	4.471	1.00	41.46	B	C
ATOM	4490	CG	GLU	B	148	-57.847	55.019	5.142	1.00	44.00	B	C
ATOM	4491	CD	GLU	B	148	-58.953	54.530	4.197	1.00	44.92	B	C
ATOM	4492	OE1	GLU	B	148	-58.837	53.397	3.668	1.00	43.26	B	O
ATOM	4493	OE2	GLU	B	148	-59.933	55.290	3.994	1.00	44.21	B	O

Figure 1

ATOM	4494	C	GLU	B	148	-56.321	57.512	3.835	1.00	40.38	B	C
ATOM	4495	O	GLU	B	148	-57.323	58.189	4.014	1.00	40.91	B	O
ATOM	4496	N	ALB	B	149	-55.090	57.965	4.060	1.00	40.56	B	N
ATOM	4497	CB	ALB	B	149	-54.818	59.314	4.565	1.00	40.37	B	C
ATOM	4498	CB	ALB	B	149	-53.346	59.439	4.938	1.00	38.08	B	C
ATOM	4499	C	ALB	B	149	-55.177	60.360	3.537	1.00	40.96	B	C
ATOM	4500	O	ALB	B	149	-55.650	61.444	3.877	1.00	40.04	B	O
ATOM	4501	N	ARG	B	150	-54.927	60.028	2.273	1.00	44.44	B	N
ATOM	4502	CB	ARG	B	150	-55.211	60.919	1.144	1.00	45.97	B	C
ATOM	4503	CB	ARG	B	150	-54.668	60.300	-0.152	1.00	49.29	B	C
ATOM	4504	CG	ARG	B	150	-54.637	61.236	-1.368	1.00	54.67	B	C
ATOM	4505	CD	ARG	B	150	-55.094	60.519	-2.668	1.00	57.99	B	C
ATOM	4506	NE	ARG	B	150	-56.555	60.450	-2.751	1.00	61.38	B	N
ATOM	4507	CZ	ARG	B	150	-57.239	59.588	-3.497	1.00	62.75	B	C
ATOM	4508	NH1	ARG	B	150	-56.599	58.699	-4.248	1.00	64.70	B	N
ATOM	4509	NH2	ARG	B	150	-58.567	59.608	-3.472	1.00	62.86	B	N
ATOM	4510	C	ARG	B	150	-56.729	61.110	1.059	1.00	44.34	B	C
ATOM	4511	O	ARG	B	150	-57.202	62.206	0.794	1.00	43.79	B	O
ATOM	4512	N	CYS	B	151	-57.483	60.045	1.322	1.00	42.95	B	N
ATOM	4513	CB	CYS	B	151	-58.940	60.093	1.274	1.00	42.58	B	C
ATOM	4514	CB	CYS	B	151	-59.494	58.686	1.148	1.00	42.73	B	C
ATOM	4515	SG	CYS	B	151	-58.775	57.851	-0.264	1.00	50.77	B	S
ATOM	4516	C	CYS	B	151	-59.540	60.770	2.495	1.00	41.82	B	C
ATOM	4517	O	CYS	B	151	-60.572	61.424	2.408	1.00	41.84	B	O
ATOM	4518	N	LEU	B	152	-58.892	60.603	3.637	1.00	41.86	B	N
ATOM	4519	CB	LEU	B	152	-59.351	61.213	4.865	1.00	41.07	B	C
ATOM	4520	CB	LEU	B	152	-58.440	60.810	6.015	1.00	41.54	B	C
ATOM	4521	CG	LEU	B	152	-58.978	60.866	7.451	1.00	42.23	B	C
ATOM	4522	CD1	LEU	B	152	-57.883	60.390	8.390	1.00	43.20	B	C
ATOM	4523	CD2	LEU	B	152	-59.416	62.253	7.831	1.00	42.24	B	C
ATOM	4524	C	LEU	B	152	-59.280	62.714	4.665	1.00	42.07	B	C
ATOM	4525	O	LEU	B	152	-60.089	63.461	5.201	1.00	41.27	B	O
ATOM	4526	N	VAL	B	153	-58.312	63.159	3.875	1.00	44.27	B	N
ATOM	4527	CB	VAL	B	153	-58.149	64.588	3.633	1.00	46.10	B	C
ATOM	4528	CB	VAL	B	153	-56.761	64.906	3.097	1.00	43.71	B	C
ATOM	4529	CG1	VAL	B	153	-56.648	66.400	2.827	1.00	41.95	B	C
ATOM	4530	CG2	VAL	B	153	-55.724	64.458	4.079	1.00	41.54	B	C
ATOM	4531	C	VAL	B	153	-59.168	65.148	2.658	1.00	48.74	B	C
ATOM	4532	O	VAL	B	153	-59.526	66.324	2.730	1.00	49.05	B	O
ATOM	4533	N	GLU	B	154	-59.635	64.305	1.746	1.00	51.96	B	N
ATOM	4534	CB	GLU	B	154	-60.609	64.743	0.760	1.00	54.68	B	C
ATOM	4535	CB	GLU	B	154	-60.684	63.740	-0.386	1.00	56.49	B	C
ATOM	4536	CG	GLU	B	154	-59.333	63.306	-0.880	1.00	61.13	B	C
ATOM	4537	CD	GLU	B	154	-59.251	63.226	-2.394	1.00	64.38	B	C
ATOM	4538	OE1	GLU	B	154	-58.260	62.656	-2.913	1.00	64.26	B	O
ATOM	4539	OE2	GLU	B	154	-60.174	63.736	-3.072	1.00	67.83	B	O
ATOM	4540	C	GLU	B	154	-61.973	64.884	1.416	1.00	55.02	B	C
ATOM	4541	O	GLU	B	154	-62.673	65.872	1.207	1.00	56.40	B	O
ATOM	4542	N	GLU	B	155	-62.349	63.898	2.220	1.00	54.50	B	N
ATOM	4543	CB	GLU	B	155	-63.638	63.940	2.887	1.00	53.41	B	C
ATOM	4544	CB	GLU	B	155	-63.925	62.625	3.600	1.00	55.67	B	C
ATOM	4545	CG	GLU	B	155	-65.047	61.841	2.948	1.00	61.17	B	C
ATOM	4546	CD	GLU	B	155	-66.433	62.233	3.458	1.00	64.74	B	C
ATOM	4547	OE1	GLU	B	155	-66.677	63.446	3.683	1.00	66.30	B	O
ATOM	4548	OE2	GLU	B	155	-67.283	61.321	3.629	1.00	67.32	B	O
ATOM	4549	C	GLU	B	155	-63.718	65.084	3.867	1.00	52.04	B	C
ATOM	4550	O	GLU	B	155	-64.770	65.674	4.031	1.00	53.35	B	O
ATOM	4551	N	LEU	B	156	-62.615	65.402	4.531	1.00	51.24	B	N
ATOM	4552	CB	LEU	B	156	-62.610	66.511	5.485	1.00	49.81	B	C
ATOM	4553	CB	LEU	B	156	-61.278	66.607	6.203	1.00	49.98	B	C
ATOM	4554	CG	LEU	B	156	-60.995	65.671	7.375	1.00	49.97	B	C
ATOM	4555	CD1	LEU	B	156	-59.536	65.796	7.819	1.00	47.99	B	C
ATOM	4556	CD2	LEU	B	156	-61.936	66.022	8.509	1.00	50.54	B	C
ATOM	4557	C	LEU	B	156	-62.821	67.797	4.747	1.00	50.32	B	C
ATOM	4558	O	LEU	B	156	-63.305	68.774	5.306	1.00	51.26	B	O
ATOM	4559	N	ARG	B	157	-62.432	67.806	3.480	1.00	51.45	B	N
ATOM	4560	CB	ARG	B	157	-62.566	69.003	2.674	1.00	51.47	B	C
ATOM	4561	CB	ARG	B	157	-61.697	68.882	1.435	1.00	49.80	B	C
ATOM	4562	CG	ARG	B	157	-61.350	70.214	0.816	1.00	51.01	B	C
ATOM	4563	CD	ARG	B	157	-60.614	70.008	-0.504	1.00	51.96	B	C
ATOM	4564	NE	ARG	B	157	-59.312	69.376	-0.315	1.00	50.12	B	N
ATOM	4565	CZ	ARG	B	157	-58.265	69.983	0.236	1.00	49.07	B	C
ATOM	4566	NH1	ARG	B	157	-58.359	71.235	0.654	1.00	48.13	B	N
ATOM	4567	NH2	ARG	B	157	-57.118	69.340	0.364	1.00	47.33	B	N
ATOM	4568	C	ARG	B	157	-64.025	69.209	2.303	1.00	52.02	B	C

Figure 1

ATOM	4569	O	ARG B 157	-64.420	70.291	1.874	1.00	52.55	B	O
ATOM	4570	N	LYS B 158	-64.822	68.165	2.502	1.00	52.73	B	N
ATOM	4571	CB	LYS B 158	-66.238	68.202	2.200	1.00	54.42	B	C
ATOM	4572	CB	LYS B 158	-66.773	66.794	2.053	1.00	55.76	B	C
ATOM	4573	CG	LYS B 158	-66.182	66.072	0.896	1.00	58.77	B	C
ATOM	4574	CD	LYS B 158	-66.786	64.702	0.805	1.00	60.65	B	C
ATOM	4575	CE	LYS B 158	-66.241	63.958	-0.379	1.00	62.55	B	C
ATOM	4576	NZ	LYS B 158	-67.031	62.710	-0.504	1.00	66.32	B	N
ATOM	4577	C	LYS B 158	-67.062	68.916	3.245	1.00	55.37	B	C
ATOM	4578	O	LYS B 158	-68.122	69.454	2.938	1.00	56.64	B	O
ATOM	4579	N	THR B 159	-66.585	68.924	4.481	1.00	56.23	B	N
ATOM	4580	CB	THR B 159	-67.324	69.583	5.545	1.00	57.27	B	C
ATOM	4581	CB	THR B 159	-66.613	69.440	6.899	1.00	57.46	B	C
ATOM	4582	OG1	THR B 159	-65.449	70.277	6.916	1.00	58.33	B	O
ATOM	4583	CG2	THR B 159	-66.208	67.995	7.141	1.00	55.51	B	C
ATOM	4584	C	THR B 159	-67.512	71.073	5.259	1.00	57.87	B	C
ATOM	4585	O	THR B 159	-68.298	71.741	5.925	1.00	58.38	B	O
ATOM	4586	N	LYS B 160	-66.780	71.592	4.280	1.00	59.21	B	N
ATOM	4587	CB	LYS B 160	-66.880	73.000	3.895	1.00	61.25	B	C
ATOM	4588	CB	LYS B 160	-68.295	73.309	3.366	1.00	63.14	B	C
ATOM	4589	CG	LYS B 160	-68.619	72.700	1.993	1.00	64.79	B	C
ATOM	4590	CD	LYS B 160	-69.896	73.290	1.394	1.00	67.20	B	C
ATOM	4591	CE	LYS B 160	-69.759	74.806	1.149	1.00	68.22	B	C
ATOM	4592	NZ	LYS B 160	-70.997	75.469	0.589	1.00	68.99	B	N
ATOM	4593	C	LYS B 160	-66.502	74.008	4.996	1.00	61.38	B	C
ATOM	4594	O	LYS B 160	-67.057	75.111	5.073	1.00	60.97	B	O
ATOM	4595	N	ALB B 161	-65.559	73.619	5.846	1.00	62.02	B	N
ATOM	4596	CB	ALB B 161	-65.072	74.484	6.917	1.00	62.73	B	C
ATOM	4597	CB	ALB B 161	-64.505	75.758	6.328	1.00	63.17	B	C
ATOM	4598	C	ALB B 161	-66.116	74.829	7.960	1.00	63.30	B	C
ATOM	4599	O	ALB B 161	-65.914	75.730	8.785	1.00	63.14	B	O
ATOM	4600	N	SER B 162	-67.233	74.116	7.926	1.00	63.53	B	N
ATOM	4601	CB	SER B 162	-68.292	74.370	8.885	1.00	63.72	B	C
ATOM	4602	CB	SER B 162	-69.656	74.142	8.240	1.00	65.98	B	C
ATOM	4603	OG	SER B 162	-70.685	74.617	9.093	1.00	70.53	B	O
ATOM	4604	C	SER B 162	-68.121	73.445	10.073	1.00	61.86	B	C
ATOM	4605	O	SER B 162	-67.662	72.313	9.923	1.00	62.38	B	O
ATOM	4606	N	PRO B 163	-68.492	73.909	11.271	1.00	59.84	B	N
ATOM	4607	CD	PRO B 163	-69.160	75.188	11.556	1.00	59.37	B	C
ATOM	4608	CB	PRO B 163	-68.367	73.100	12.487	1.00	58.88	B	C
ATOM	4609	CB	PRO B 163	-69.250	73.843	13.480	1.00	59.46	B	C
ATOM	4610	CG	PRO B 163	-69.069	75.271	13.064	1.00	60.18	B	C
ATOM	4611	C	PRO B 163	-68.807	71.649	12.284	1.00	57.56	B	C
ATOM	4612	O	PRO B 163	-69.648	71.371	11.430	1.00	57.25	B	O
ATOM	4613	N	CYS B 164	-68.237	70.730	13.065	1.00	56.25	B	N
ATOM	4614	CB	CYS B 164	-68.592	69.319	12.949	1.00	54.65	B	C
ATOM	4615	CB	CYS B 164	-68.100	68.760	11.619	1.00	54.58	B	C
ATOM	4616	SG	CYS B 164	-66.449	68.039	11.738	1.00	51.21	B	S
ATOM	4617	C	CYS B 164	-68.007	68.434	14.042	1.00	54.07	B	C
ATOM	4618	O	CYS B 164	-67.091	68.827	14.768	1.00	55.17	B	O
ATOM	4619	N	ASP B 165	-68.540	67.218	14.120	1.00	51.86	B	N
ATOM	4620	CB	ASP B 165	-68.073	66.214	15.060	1.00	49.08	B	C
ATOM	4621	CB	ASP B 165	-69.245	65.408	15.639	1.00	50.98	B	C
ATOM	4622	CG	ASP B 165	-68.830	64.490	16.793	1.00	52.42	B	C
ATOM	4623	OD1	ASP B 165	-69.669	63.690	17.263	1.00	52.79	B	O
ATOM	4624	OD2	ASP B 165	-67.671	64.563	17.242	1.00	54.94	B	O
ATOM	4625	C	ASP B 165	-67.185	65.303	14.224	1.00	46.84	B	C
ATOM	4626	O	ASP B 165	-67.622	64.747	13.200	1.00	48.17	B	O
ATOM	4627	N	PRO B 166	-65.913	65.166	14.623	1.00	43.29	B	N
ATOM	4628	CD	PRO B 166	-65.217	66.043	15.576	1.00	41.41	B	C
ATOM	4629	CB	PRO B 166	-64.951	64.324	13.920	1.00	40.20	B	C
ATOM	4630	CB	PRO B 166	-63.630	64.743	14.528	1.00	41.09	B	C
ATOM	4631	CG	PRO B 166	-63.875	66.138	14.973	1.00	41.02	B	C
ATOM	4632	C	PRO B 166	-65.201	62.849	14.153	1.00	37.68	B	C
ATOM	4633	O	PRO B 166	-64.838	62.007	13.335	1.00	37.11	B	O
ATOM	4634	N	THR B 167	-65.833	62.539	15.274	1.00	35.02	B	N
ATOM	4635	CB	THR B 167	-66.060	61.156	15.623	1.00	34.99	B	C
ATOM	4636	CB	THR B 167	-67.197	61.010	16.593	1.00	34.19	B	C
ATOM	4637	OG1	THR B 167	-67.094	62.018	17.605	1.00	35.21	B	O
ATOM	4638	CG2	THR B 167	-67.116	59.645	17.257	1.00	32.68	B	C
ATOM	4639	C	THR B 167	-66.285	60.161	14.494	1.00	35.64	B	C
ATOM	4640	O	THR B 167	-65.608	59.141	14.437	1.00	38.31	B	O
ATOM	4641	N	PHE B 168	-67.216	60.443	13.592	1.00	34.81	B	N
ATOM	4642	CB	PHE B 168	-67.510	59.517	12.502	1.00	33.50	B	C
ATOM	4643	CB	PHE B 168	-68.861	59.859	11.869	1.00	34.64	B	C

Figure 1

ATOM	4644	CG	PHE	B	168	-69.213	59.002	10.682	1.00	34.39	B	C
ATOM	4645	CD1	PHE	B	168	-69.020	59.469	9.380	1.00	33.49	B	C
ATOM	4646	CD2	PHE	B	168	-69.683	57.707	10.866	1.00	33.63	B	C
ATOM	4647	CE1	PHE	B	168	-69.285	58.651	8.284	1.00	33.33	B	C
ATOM	4648	CE2	PHE	B	168	-69.949	56.880	9.772	1.00	34.22	B	C
ATOM	4649	CZ	PHE	B	168	-69.747	57.355	8.479	1.00	33.81	B	C
ATOM	4650	C	PHE	B	168	-66.448	59.448	11.422	1.00	33.77	B	C
ATOM	4651	O	PHE	B	168	-66.053	58.351	11.010	1.00	34.04	B	O
ATOM	4652	N	ILE	B	169	-66.005	60.607	10.931	1.00	33.04	B	N
ATOM	4653	CB	ILE	B	169	-64.966	60.631	9.900	1.00	31.16	B	C
ATOM	4654	CB	ILE	B	169	-64.562	62.073	9.521	1.00	29.19	B	C
ATOM	4655	CG2	ILE	B	169	-63.305	62.043	8.681	1.00	31.04	B	C
ATOM	4656	CG1	ILE	B	169	-65.710	62.761	8.773	1.00	29.06	B	C
ATOM	4657	CD1	ILE	B	169	-65.362	64.136	8.157	1.00	23.45	B	C
ATOM	4658	C	ILE	B	169	-63.762	59.906	10.490	1.00	31.16	B	C
ATOM	4659	O	ILE	B	169	-63.325	58.869	9.978	1.00	30.18	B	O
ATOM	4660	N	LEU	B	170	-63.262	60.450	11.592	1.00	30.66	B	N
ATOM	4661	CB	LEU	B	170	-62.136	59.886	12.294	1.00	33.01	B	C
ATOM	4662	CB	LEU	B	170	-61.922	60.618	13.603	1.00	32.78	B	C
ATOM	4663	CG	LEU	B	170	-60.689	61.493	13.689	1.00	34.59	B	C
ATOM	4664	CD1	LEU	B	170	-60.394	62.191	12.348	1.00	34.12	B	C
ATOM	4665	CD2	LEU	B	170	-60.938	62.501	14.802	1.00	33.75	B	C
ATOM	4666	C	LEU	B	170	-62.329	58.412	12.595	1.00	36.23	B	C
ATOM	4667	O	LEU	B	170	-61.360	57.686	12.811	1.00	38.84	B	O
ATOM	4668	N	GLY	B	171	-63.574	57.960	12.640	1.00	36.68	B	N
ATOM	4669	CB	GLY	B	171	-63.815	56.556	12.912	1.00	36.55	B	C
ATOM	4670	C	GLY	B	171	-63.700	55.707	11.660	1.00	37.28	B	C
ATOM	4671	O	GLY	B	171	-63.329	54.538	11.721	1.00	37.69	B	O
ATOM	4672	N	CYS	B	172	-63.995	56.299	10.512	1.00	37.14	B	N
ATOM	4673	CB	CYS	B	172	-63.935	55.557	9.270	1.00	37.77	B	C
ATOM	4674	CB	CYS	B	172	-64.661	56.324	8.170	1.00	38.28	B	C
ATOM	4675	SG	CYS	B	172	-66.414	56.510	8.462	1.00	39.93	B	S
ATOM	4676	C	CYS	B	172	-62.518	55.291	8.824	1.00	37.68	B	C
ATOM	4677	O	CYS	B	172	-62.176	54.195	8.382	1.00	38.54	B	O
ATOM	4678	N	ALB	B	173	-61.694	56.319	8.935	1.00	36.49	B	N
ATOM	4679	CB	ALB	B	173	-60.319	56.222	8.507	1.00	34.61	B	C
ATOM	4680	CB	ALB	B	173	-59.549	57.442	8.987	1.00	36.10	B	C
ATOM	4681	C	ALB	B	173	-59.667	54.946	8.990	1.00	33.15	B	C
ATOM	4682	O	ALB	B	173	-59.354	54.073	8.191	1.00	33.82	B	O
ATOM	4683	N	PRO	B	174	-59.497	54.802	10.314	1.00	32.21	B	N
ATOM	4684	CD	PRO	B	174	-60.059	55.645	11.384	1.00	30.78	B	C
ATOM	4685	CB	PRO	B	174	-58.864	53.616	10.895	1.00	30.68	B	C
ATOM	4686	CB	PRO	B	174	-58.998	53.861	12.390	1.00	30.41	B	C
ATOM	4687	CG	PRO	B	174	-59.133	55.346	12.504	1.00	30.71	B	C
ATOM	4688	C	PRO	B	174	-59.494	52.297	10.481	1.00	31.02	B	C
ATOM	4689	O	PRO	B	174	-58.799	51.338	10.158	1.00	31.28	B	O
ATOM	4690	N	CYS	B	175	-60.819	52.261	10.508	1.00	31.91	B	N
ATOM	4691	CB	CYS	B	175	-61.580	51.076	10.156	1.00	32.91	B	C
ATOM	4692	CB	CYS	B	175	-63.061	51.354	10.381	1.00	34.54	B	C
ATOM	4693	SG	CYS	B	175	-64.140	49.943	10.032	1.00	43.98	B	S
ATOM	4694	C	CYS	B	175	-61.327	50.664	8.705	1.00	32.00	B	C
ATOM	4695	O	CYS	B	175	-61.154	49.482	8.393	1.00	31.12	B	O
ATOM	4696	N	ASN	B	176	-61.282	51.662	7.830	1.00	31.75	B	N
ATOM	4697	CB	ASN	B	176	-61.051	51.447	6.413	1.00	31.54	B	C
ATOM	4698	CB	ASN	B	176	-61.184	52.776	5.661	1.00	31.58	B	C
ATOM	4699	CG	ASN	B	176	-62.100	52.666	4.442	1.00	32.62	B	C
ATOM	4700	OD1	ASN	B	176	-62.046	51.694	3.711	1.00	30.16	B	O
ATOM	4701	ND2	ASN	B	176	-62.942	53.668	4.229	1.00	34.48	B	N
ATOM	4702	C	ASN	B	176	-59.682	50.804	6.151	1.00	30.78	B	C
ATOM	4703	O	ASN	B	176	-59.528	50.011	5.222	1.00	29.78	B	O
ATOM	4704	N	VAL	B	177	-58.690	51.141	6.970	1.00	30.56	B	N
ATOM	4705	CB	VAL	B	177	-57.354	50.567	6.822	1.00	29.05	B	C
ATOM	4706	CB	VAL	B	177	-56.356	51.131	7.875	1.00	28.06	B	C
ATOM	4707	CG1	VAL	B	177	-55.131	50.240	7.961	1.00	29.47	B	C
ATOM	4708	CG2	VAL	B	177	-55.930	52.540	7.508	1.00	25.39	B	C
ATOM	4709	C	VAL	B	177	-57.406	49.049	6.982	1.00	29.46	B	C
ATOM	4710	O	VAL	B	177	-56.895	48.327	6.135	1.00	28.88	B	O
ATOM	4711	N	ILE	B	178	-58.020	48.566	8.064	1.00	30.19	B	N
ATOM	4712	CB	ILE	B	178	-58.111	47.125	8.310	1.00	31.36	B	C
ATOM	4713	CB	ILE	B	178	-58.848	46.828	9.639	1.00	30.60	B	C
ATOM	4714	CG2	ILE	B	178	-59.149	45.357	9.757	1.00	31.81	B	C
ATOM	4715	CG1	ILE	B	178	-57.947	47.148	10.833	1.00	31.09	B	C
ATOM	4716	CD1	ILE	B	178	-57.611	48.594	11.026	1.00	29.91	B	C
ATOM	4717	C	ILE	B	178	-58.772	46.359	7.155	1.00	33.20	B	C
ATOM	4718	O	ILE	B	178	-58.429	45.203	6.901	1.00	31.56	B	O

Figure 1

ATOM	4719	N	CYS	B	179	-59.711	47.011	6.465	1.00	35.80	B	N
ATOM	4720	CB	CYS	B	179	-60.424	46.432	5.319	1.00	38.59	B	C
ATOM	4721	CB	CYS	B	179	-61.553	47.355	4.886	1.00	37.92	B	C
ATOM	4722	SG	CYS	B	179	-62.994	47.314	5.931	1.00	44.53	B	S
ATOM	4723	C	CYS	B	179	-59.512	46.213	4.116	1.00	41.01	B	C
ATOM	4724	O	CYS	B	179	-59.593	45.204	3.419	1.00	41.99	B	O
ATOM	4725	N	SER	B	180	-58.653	47.190	3.864	1.00	43.69	B	N
ATOM	4726	CB	SER	B	180	-57.725	47.146	2.750	1.00	44.63	B	C
ATOM	4727	CB	SER	B	180	-57.092	48.539	2.576	1.00	45.23	B	C
ATOM	4728	OG	SER	B	180	-56.302	48.619	1.400	1.00	47.67	B	O
ATOM	4729	C	SER	B	180	-56.652	46.107	3.062	1.00	44.98	B	C
ATOM	4730	O	SER	B	180	-55.915	45.673	2.179	1.00	46.29	B	O
ATOM	4731	N	ILE	B	181	-56.580	45.707	4.326	1.00	43.92	B	N
ATOM	4732	CB	ILE	B	181	-55.577	44.754	4.765	1.00	43.46	B	C
ATOM	4733	CB	ILE	B	181	-55.015	45.164	6.130	1.00	43.02	B	C
ATOM	4734	CG2	ILE	B	181	-53.998	44.155	6.597	1.00	42.15	B	C
ATOM	4735	CG1	ILE	B	181	-54.401	46.558	6.047	1.00	41.93	B	C
ATOM	4736	CD1	ILE	B	181	-54.074	47.131	7.404	1.00	40.49	B	C
ATOM	4737	C	ILE	B	181	-56.098	43.337	4.874	1.00	44.20	B	C
ATOM	4738	O	ILE	B	181	-55.333	42.401	5.063	1.00	45.43	B	O
ATOM	4739	N	ILE	B	182	-57.403	43.173	4.749	1.00	46.04	B	N
ATOM	4740	CB	ILE	B	182	-58.011	41.850	4.857	1.00	46.87	B	C
ATOM	4741	CB	ILE	B	182	-58.954	41.784	6.099	1.00	46.79	B	C
ATOM	4742	CG2	ILE	B	182	-59.410	40.358	6.342	1.00	45.98	B	C
ATOM	4743	CG1	ILE	B	182	-58.205	42.230	7.355	1.00	45.55	B	C
ATOM	4744	CD1	ILE	B	182	-59.042	42.154	8.613	1.00	46.20	B	C
ATOM	4745	C	ILE	B	182	-58.805	41.555	3.588	1.00	47.28	B	C
ATOM	4746	O	ILE	B	182	-58.834	40.428	3.102	1.00	46.28	B	O
ATOM	4747	N	PHE	B	183	-59.424	42.598	3.052	1.00	48.09	B	N
ATOM	4748	CB	PHE	B	183	-60.227	42.500	1.847	1.00	49.83	B	C
ATOM	4749	CB	PHE	B	183	-61.509	43.299	2.027	1.00	47.78	B	C
ATOM	4750	CG	PHE	B	183	-62.275	42.939	3.252	1.00	45.09	B	C
ATOM	4751	CD1	PHE	B	183	-63.305	43.744	3.690	1.00	44.50	B	C
ATOM	4752	CD2	PHE	B	183	-61.976	41.788	3.961	1.00	45.88	B	C
ATOM	4753	CE1	PHE	B	183	-64.030	43.409	4.819	1.00	46.27	B	C
ATOM	4754	CE2	PHE	B	183	-62.694	41.440	5.097	1.00	46.50	B	C
ATOM	4755	CZ	PHE	B	183	-63.724	42.250	5.529	1.00	46.15	B	C
ATOM	4756	C	PHE	B	183	-59.431	43.071	0.679	1.00	51.99	B	C
ATOM	4757	O	PHE	B	183	-59.887	43.072	-0.467	1.00	51.93	B	O
ATOM	4758	N	HIS	B	184	-58.243	43.574	0.986	1.00	54.26	B	N
ATOM	4759	CB	HIS	B	184	-57.368	44.153	-0.022	1.00	57.04	B	C
ATOM	4760	CB	HIS	B	184	-57.116	43.150	-1.147	1.00	58.34	B	C
ATOM	4761	CG	HIS	B	184	-56.149	43.636	-2.179	1.00	61.20	B	C
ATOM	4762	CD2	HIS	B	184	-56.300	43.879	-3.504	1.00	62.06	B	C
ATOM	4763	ND1	HIS	B	184	-54.835	43.928	-1.884	1.00	61.93	B	N
ATOM	4764	CE1	HIS	B	184	-54.216	44.329	-2.979	1.00	62.15	B	C
ATOM	4765	NE2	HIS	B	184	-55.082	44.309	-3.976	1.00	62.55	B	N
ATOM	4766	C	HIS	B	184	-57.947	45.425	-0.622	1.00	57.30	B	C
ATOM	4767	O	HIS	B	184	-57.212	46.261	-1.149	1.00	58.94	B	O
ATOM	4768	N	LYS	B	185	-59.261	45.582	-0.539	1.00	56.65	B	N
ATOM	4769	CB	LYS	B	185	-59.901	46.754	-1.113	1.00	56.03	B	C
ATOM	4770	CB	LYS	B	185	-60.966	46.302	-2.135	1.00	58.53	B	C
ATOM	4771	CG	LYS	B	185	-61.574	47.422	-2.997	1.00	60.06	B	C
ATOM	4772	CD	LYS	B	185	-62.714	46.920	-3.879	1.00	59.90	B	C
ATOM	4773	CE	LYS	B	185	-64.076	47.409	-3.374	1.00	60.83	B	C
ATOM	4774	NZ	LYS	B	185	-64.326	46.992	-1.964	1.00	60.91	B	N
ATOM	4775	C	LYS	B	185	-60.550	47.615	-0.038	1.00	54.45	B	C
ATOM	4776	O	LYS	B	185	-61.293	47.108	0.800	1.00	55.44	B	O
ATOM	4777	N	ARG	B	186	-60.270	48.913	-0.053	1.00	52.11	B	N
ATOM	4778	CB	ARG	B	186	-60.880	49.818	0.917	1.00	50.12	B	C
ATOM	4779	CB	ARG	B	186	-60.042	51.087	1.089	1.00	49.38	B	C
ATOM	4780	CG	ARG	B	186	-60.214	52.107	-0.015	1.00	48.39	B	C
ATOM	4781	CD	ARG	B	186	-59.448	53.400	0.250	1.00	49.08	B	C
ATOM	4782	NE	ARG	B	186	-60.051	54.303	1.239	1.00	48.59	B	N
ATOM	4783	CZ	ARG	B	186	-60.969	55.233	0.971	1.00	48.23	B	C
ATOM	4784	NH1	ARG	B	186	-61.435	55.409	-0.255	1.00	45.39	B	N
ATOM	4785	NH2	ARG	B	186	-61.382	56.039	1.928	1.00	50.19	B	N
ATOM	4786	C	ARG	B	186	-62.261	50.193	0.384	1.00	50.52	B	C
ATOM	4787	O	ARG	B	186	-62.591	49.897	-0.758	1.00	50.42	B	O
ATOM	4788	N	PHE	B	187	-63.071	50.841	1.207	1.00	51.94	B	N
ATOM	4789	CB	PHE	B	187	-64.412	51.233	0.789	1.00	53.53	B	C
ATOM	4790	CB	PHE	B	187	-65.483	50.638	1.716	1.00	53.37	B	C
ATOM	4791	CG	PHE	B	187	-65.464	49.149	1.785	1.00	53.65	B	C
ATOM	4792	CD1	PHE	B	187	-64.665	48.496	2.707	1.00	54.23	B	C
ATOM	4793	CD2	PHE	B	187	-66.207	48.397	0.890	1.00	54.26	B	C

65/514

Figure 1

ATOM	4794	CE1	PHE	B	187	-64.599	47.105	2.740	1.00	56.45	B	C
ATOM	4795	CE2	PHE	B	187	-66.152	47.008	0.908	1.00	56.87	B	C
ATOM	4796	CZ	PHE	B	187	-65.343	46.355	1.836	1.00	57.29	B	C
ATOM	4797	C	PHE	B	187	-64.567	52.738	0.805	1.00	54.85	B	C
ATOM	4798	O	PHE	B	187	-63.811	53.444	1.473	1.00	55.43	B	O
ATOM	4799	N	ASP	B	188	-65.561	53.219	0.063	1.00	57.10	B	N
ATOM	4800	CB	ASP	B	188	-65.879	54.636	-0.010	1.00	58.85	B	C
ATOM	4801	CB	ASP	B	188	-66.781	54.928	-1.229	1.00	60.34	B	C
ATOM	4802	CG	ASP	B	188	-67.067	56.433	-1.432	1.00	62.29	B	C
ATOM	4803	OD1	ASP	B	188	-67.700	57.064	-0.550	1.00	62.15	B	O
ATOM	4804	OD2	ASP	B	188	-66.661	56.981	-2.486	1.00	62.26	B	O
ATOM	4805	C	ASP	B	188	-66.630	54.923	1.281	1.00	59.68	B	C
ATOM	4806	O	ASP	B	188	-67.375	54.081	1.786	1.00	59.52	B	O
ATOM	4807	N	TYR	B	189	-66.414	56.112	1.820	1.00	60.70	B	N
ATOM	4808	CB	TYR	B	189	-67.068	56.519	3.042	1.00	61.22	B	C
ATOM	4809	CB	TYR	B	189	-66.585	57.928	3.432	1.00	61.01	B	C
ATOM	4810	CG	TYR	B	189	-65.151	57.942	3.941	1.00	60.56	B	C
ATOM	4811	CD1	TYR	B	189	-64.549	59.115	4.405	1.00	59.75	B	C
ATOM	4812	CE1	TYR	B	189	-63.235	59.097	4.904	1.00	59.10	B	C
ATOM	4813	CD2	TYR	B	189	-64.406	56.763	3.988	1.00	60.47	B	C
ATOM	4814	CE2	TYR	B	189	-63.112	56.739	4.479	1.00	59.24	B	C
ATOM	4815	CZ	TYR	B	189	-62.531	57.897	4.934	1.00	58.53	B	C
ATOM	4816	OH	TYR	B	189	-61.248	57.825	5.407	1.00	58.88	B	O
ATOM	4817	C	TYR	B	189	-68.587	56.468	2.914	1.00	61.69	B	C
ATOM	4818	O	TYR	B	189	-69.294	56.851	3.836	1.00	62.29	B	O
ATOM	4819	N	LYS	B	190	-69.095	55.987	1.781	1.00	62.67	B	N
ATOM	4820	CB	LYS	B	190	-70.544	55.903	1.584	1.00	63.95	B	C
ATOM	4821	CB	LYS	B	190	-70.978	56.759	0.394	1.00	66.52	B	C
ATOM	4822	CG	LYS	B	190	-71.116	58.257	0.697	1.00	70.33	B	C
ATOM	4823	CD	LYS	B	190	-69.922	59.064	0.169	1.00	73.18	B	C
ATOM	4824	CE	LYS	B	190	-69.801	58.960	-1.350	1.00	73.73	B	C
ATOM	4825	NZ	LYS	B	190	-68.443	59.368	-1.829	1.00	73.45	B	N
ATOM	4826	C	LYS	B	190	-71.056	54.480	1.384	1.00	63.06	B	C
ATOM	4827	O	LYS	B	190	-72.206	54.172	1.699	1.00	62.20	B	O
ATOM	4828	N	ASP	B	191	-70.203	53.624	0.838	1.00	62.75	B	N
ATOM	4829	CB	ASP	B	191	-70.545	52.233	0.597	1.00	62.69	B	C
ATOM	4830	CB	ASP	B	191	-69.257	51.451	0.339	1.00	64.65	B	C
ATOM	4831	CG	ASP	B	191	-69.508	50.048	-0.156	1.00	66.31	B	C
ATOM	4832	OD1	ASP	B	191	-68.536	49.411	-0.614	1.00	67.27	B	O
ATOM	4833	OD2	ASP	B	191	-70.661	49.577	-0.083	1.00	68.68	B	O
ATOM	4834	C	ASP	B	191	-71.303	51.668	1.789	1.00	62.47	B	C
ATOM	4835	O	ASP	B	191	-70.865	51.779	2.931	1.00	62.44	B	O
ATOM	4836	N	GLN	B	192	-72.440	51.058	1.526	1.00	15.00	B	N
ATOM	4837	CB	GLN	B	192	-73.315	50.507	2.554	1.00	15.00	B	C
ATOM	4838	CB	GLN	B	192	-74.598	49.964	1.924	1.00	15.00	B	C
ATOM	4839	CG	GLN	B	192	-75.447	51.019	1.235	1.00	15.00	B	C
ATOM	4840	CD	GLN	B	192	-76.686	50.437	0.581	1.00	15.00	B	C
ATOM	4841	OE1	GLN	B	192	-76.893	49.223	0.590	1.00	15.00	B	O
ATOM	4842	NE2	GLN	B	192	-77.516	51.302	0.011	1.00	15.00	B	N
ATOM	4843	C	GLN	B	192	-72.611	49.399	3.333	1.00	15.00	B	C
ATOM	4844	O	GLN	B	192	-72.718	49.347	4.574	1.00	65.61	B	O
ATOM	4845	N	GLN	B	193	-71.921	48.498	2.644	1.00	63.99	B	N
ATOM	4846	CB	GLN	B	193	-71.191	47.410	3.287	1.00	63.01	B	C
ATOM	4847	CB	GLN	B	193	-70.220	46.757	2.306	1.00	65.19	B	C
ATOM	4848	CG	GLN	B	193	-70.876	46.089	1.122	1.00	68.69	B	C
ATOM	4849	CD	GLN	B	193	-69.865	45.420	0.206	1.00	70.19	B	C
ATOM	4850	OE1	GLN	B	193	-69.066	44.579	0.641	1.00	68.27	B	O
ATOM	4851	NE2	GLN	B	193	-69.895	45.791	-1.073	1.00	72.11	B	N
ATOM	4852	C	GLN	B	193	-70.380	48.000	4.423	1.00	61.09	B	C
ATOM	4853	O	GLN	B	193	-70.376	47.495	5.540	1.00	61.23	B	O
ATOM	4854	N	PHE	B	194	-69.688	49.084	4.113	1.00	58.88	B	N
ATOM	4855	CB	PHE	B	194	-68.857	49.760	5.087	1.00	56.78	B	C
ATOM	4856	CB	PHE	B	194	-68.101	50.895	4.418	1.00	55.24	B	C
ATOM	4857	CG	PHE	B	194	-66.975	51.431	5.231	1.00	53.90	B	C
ATOM	4858	CD1	PHE	B	194	-66.808	52.800	5.381	1.00	54.07	B	C
ATOM	4859	CD2	PHE	B	194	-66.040	50.574	5.794	1.00	54.82	B	C
ATOM	4860	CE1	PHE	B	194	-65.720	53.314	6.071	1.00	53.76	B	C
ATOM	4861	CE2	PHE	B	194	-64.944	51.074	6.490	1.00	55.32	B	C
ATOM	4862	CZ	PHE	B	194	-64.783	52.450	6.627	1.00	55.56	B	C
ATOM	4863	C	PHE	B	194	-69.703	50.322	6.209	1.00	57.13	B	C
ATOM	4864	O	PHE	B	194	-69.419	50.095	7.385	1.00	58.32	B	O
ATOM	4865	N	LEU	B	195	-70.745	51.060	5.839	1.00	55.88	B	N
ATOM	4866	CB	LEU	B	195	-71.636	51.677	6.813	1.00	54.01	B	C
ATOM	4867	CB	LEU	B	195	-72.768	52.379	6.098	1.00	54.24	B	C
ATOM	4868	CG	LEU	B	195	-72.297	53.587	5.325	1.00	54.86	B	C

Figure 1

ATOM	4869	CD1	LEU	B	195	-73.366	53.966	4.344	1.00	57.10	B	C
ATOM	4870	CD2	LEU	B	195	-71.988	54.734	6.273	1.00	55.28	B	C
ATOM	4871	C	LEU	B	195	-72.226	50.713	7.821	1.00	52.83	B	C
ATOM	4872	O	LEU	B	195	-72.517	51.095	8.950	1.00	52.98	B	O
ATOM	4873	N	ASN	B	196	-72.416	49.466	7.420	1.00	51.86	B	N
ATOM	4874	CB	ASN	B	196	-72.990	48.480	8.324	1.00	51.70	B	C
ATOM	4875	CB	ASN	B	196	-73.562	47.305	7.539	1.00	52.23	B	C
ATOM	4876	CG	ASN	B	196	-74.756	47.693	6.702	1.00	52.06	B	C
ATOM	4877	OD1	ASN	B	196	-75.116	46.986	5.764	1.00	53.69	B	O
ATOM	4878	ND2	ASN	B	196	-75.383	48.818	7.035	1.00	50.27	B	N
ATOM	4879	C	ASN	B	196	-71.977	47.963	9.321	1.00	50.85	B	C
ATOM	4880	O	ASN	B	196	-72.295	47.825	10.502	1.00	52.16	B	O
ATOM	4881	N	LEU	B	197	-70.770	47.666	8.837	1.00	49.68	B	N
ATOM	4882	CB	LEU	B	197	-69.679	47.158	9.675	1.00	47.99	B	C
ATOM	4883	CB	LEU	B	197	-68.405	46.979	8.852	1.00	47.91	B	C
ATOM	4884	CG	LEU	B	197	-67.629	45.678	9.041	1.00	48.91	B	C
ATOM	4885	CD1	LEU	B	197	-66.364	45.704	8.178	1.00	49.94	B	C
ATOM	4886	CD2	LEU	B	197	-67.289	45.485	10.494	1.00	48.21	B	C
ATOM	4887	C	LEU	B	197	-69.417	48.192	10.746	1.00	47.15	B	C
ATOM	4888	O	LEU	B	197	-69.189	47.879	11.909	1.00	45.95	B	O
ATOM	4889	N	MET	B	198	-69.442	49.441	10.328	1.00	46.15	B	N
ATOM	4890	CB	MET	B	198	-69.220	50.514	11.243	1.00	46.70	B	C
ATOM	4891	CB	MET	B	198	-69.340	51.820	10.497	1.00	49.05	B	C
ATOM	4892	CG	MET	B	198	-68.243	51.989	9.480	1.00	52.11	B	C
ATOM	4893	SD	MET	B	198	-66.715	52.422	10.308	1.00	57.49	B	S
ATOM	4894	CE	MET	B	198	-66.989	54.245	10.533	1.00	54.82	B	C
ATOM	4895	C	MET	B	198	-70.245	50.433	12.358	1.00	46.81	B	C
ATOM	4896	O	MET	B	198	-69.894	50.335	13.526	1.00	46.02	B	O
ATOM	4897	N	GLU	B	199	-71.519	50.462	11.983	1.00	48.48	B	N
ATOM	4898	CB	GLU	B	199	-72.625	50.405	12.932	1.00	49.71	B	C
ATOM	4899	CB	GLU	B	199	-73.944	50.200	12.173	1.00	51.45	B	C
ATOM	4900	CG	GLU	B	199	-75.222	50.361	13.001	1.00	54.58	B	C
ATOM	4901	CD	GLU	B	199	-75.929	49.029	13.299	1.00	56.73	B	C
ATOM	4902	OE1	GLU	B	199	-76.311	48.311	12.339	1.00	57.97	B	O
ATOM	4903	OE2	GLU	B	199	-76.102	48.707	14.502	1.00	54.14	B	O
ATOM	4904	C	GLU	B	199	-72.430	49.276	13.924	1.00	49.24	B	C
ATOM	4905	O	GLU	B	199	-72.426	49.478	15.140	1.00	49.47	B	O
ATOM	4906	N	LYS	B	200	-72.262	48.077	13.400	1.00	48.27	B	N
ATOM	4907	CB	LYS	B	200	-72.104	46.928	14.251	1.00	48.22	B	C
ATOM	4908	CB	LYS	B	200	-72.124	45.665	13.383	1.00	48.78	B	C
ATOM	4909	CG	LYS	B	200	-73.029	44.551	13.924	1.00	50.73	B	C
ATOM	4910	CD	LYS	B	200	-74.464	45.003	14.215	1.00	52.94	B	C
ATOM	4911	CE	LYS	B	200	-75.220	45.444	12.964	1.00	54.46	B	C
ATOM	4912	NZ	LYS	B	200	-76.659	45.748	13.306	1.00	56.57	B	N
ATOM	4913	C	LYS	B	200	-70.844	47.034	15.125	1.00	47.84	B	C
ATOM	4914	O	LYS	B	200	-70.748	46.369	16.159	1.00	46.65	B	O
ATOM	4915	N	LEU	B	201	-69.897	47.886	14.717	1.00	48.23	B	N
ATOM	4916	CB	LEU	B	201	-68.654	48.123	15.476	1.00	47.14	B	C
ATOM	4917	CB	LEU	B	201	-67.514	48.565	14.553	1.00	45.38	B	C
ATOM	4918	CG	LEU	B	201	-66.591	47.485	13.977	1.00	44.55	B	C
ATOM	4919	CD1	LEU	B	201	-65.529	48.116	13.080	1.00	43.84	B	C
ATOM	4920	CD2	LEU	B	201	-65.944	46.727	15.103	1.00	42.83	B	C
ATOM	4921	C	LEU	B	201	-68.844	49.185	16.553	1.00	47.37	B	C
ATOM	4922	O	LEU	B	201	-68.406	48.999	17.677	1.00	47.30	B	O
ATOM	4923	N	ASN	B	202	-69.478	50.304	16.215	1.00	49.17	B	N
ATOM	4924	CB	ASN	B	202	-69.681	51.331	17.219	1.00	50.88	B	C
ATOM	4925	CB	ASN	B	202	-70.047	52.684	16.603	1.00	53.37	B	C
ATOM	4926	CG	ASN	B	202	-70.489	53.708	17.674	1.00	57.37	B	C
ATOM	4927	OD1	ASN	B	202	-69.757	53.968	18.648	1.00	58.56	B	O
ATOM	4928	ND2	ASN	B	202	-71.690	54.276	17.505	1.00	58.93	B	N
ATOM	4929	C	ASN	B	202	-70.740	50.941	18.242	1.00	51.77	B	C
ATOM	4930	O	ASN	B	202	-70.833	51.572	19.289	1.00	51.84	B	O
ATOM	4931	N	GLU	B	203	-71.544	49.916	17.955	1.00	53.14	B	N
ATOM	4932	CB	GLU	B	203	-72.558	49.476	18.922	1.00	53.99	B	C
ATOM	4933	CB	GLU	B	203	-73.692	48.695	18.245	1.00	57.58	B	C
ATOM	4934	CG	GLU	B	203	-74.757	49.557	17.561	1.00	63.64	B	C
ATOM	4935	CD	GLU	B	203	-76.118	48.847	17.451	1.00	65.85	B	C
ATOM	4936	OE1	GLU	B	203	-76.161	47.680	16.985	1.00	67.69	B	O
ATOM	4937	OE2	GLU	B	203	-77.141	49.467	17.834	1.00	67.28	B	O
ATOM	4938	C	GLU	B	203	-71.910	48.589	19.985	1.00	52.30	B	C
ATOM	4939	O	GLU	B	203	-72.112	48.788	21.184	1.00	50.38	B	O
ATOM	4940	N	ASN	B	204	-71.121	47.619	19.527	1.00	51.66	B	N
ATOM	4941	CB	ASN	B	204	-70.430	46.704	20.415	1.00	52.29	B	C
ATOM	4942	CB	ASN	B	204	-69.584	45.715	19.613	1.00	52.54	B	C
ATOM	4943	CG	ASN	B	204	-70.320	44.415	19.308	1.00	53.58	B	C

Figure 1

ATOM	4944	OD1	ASN	B	204	-70.051	43.762	18.301	1.00	54.12	B	O
ATOM	4945	ND2	ASN	B	204	-71.238	44.031	20.180	1.00	53.94	B	N
ATOM	4946	C	ASN	B	204	-69.540	47.451	21.402	1.00	53.02	B	C
ATOM	4947	O	ASN	B	204	-69.397	47.027	22.553	1.00	53.52	B	O
ATOM	4948	N	ILE	B	205	-68.942	48.556	20.959	1.00	52.58	B	N
ATOM	4949	CB	ILE	B	205	-68.073	49.326	21.837	1.00	52.48	B	C
ATOM	4950	CB	ILE	B	205	-67.107	50.251	21.077	1.00	52.82	B	C
ATOM	4951	CG2	ILE	B	205	-66.342	49.467	20.028	1.00	52.62	B	C
ATOM	4952	CG1	ILE	B	205	-67.885	51.390	20.438	1.00	54.84	B	C
ATOM	4953	CD1	ILE	B	205	-67.116	52.675	20.410	1.00	56.22	B	C
ATOM	4954	C	ILE	B	205	-68.877	50.200	22.774	1.00	52.07	B	C
ATOM	4955	O	ILE	B	205	-68.312	50.858	23.643	1.00	51.76	B	O
ATOM	4956	N	GLU	B	206	-70.033	49.928	22.691	1.00	15.00	B	N
ATOM	4957	CA	GLU	B	206	-70.774	50.714	23.669	1.00	15.00	B	C
ATOM	4958	CB	GLU	B	206	-71.706	51.700	22.961	1.00	15.00	B	C
ATOM	4959	CG	GLU	B	206	-70.984	52.780	22.171	1.00	15.00	B	C
ATOM	4960	CD	GLU	B	206	-71.937	53.707	21.445	1.00	15.00	B	C
ATOM	4961	OE1	GLU	B	206	-71.466	54.704	20.854	1.00	15.00	B	O
ATOM	4962	OE2	GLU	B	206	-73.157	53.442	21.464	1.00	15.00	B	O
ATOM	4963	C	GLU	B	206	-71.583	49.814	24.597	1.00	15.00	B	C
ATOM	4964	O	GLU	B	206	-71.805	50.437	25.646	1.00	52.36	B	O
ATOM	4965	N	ILE	B	207	-72.189	48.953	24.031	1.00	52.43	B	N
ATOM	4966	CB	ILE	B	207	-72.800	48.056	24.995	1.00	52.34	B	C
ATOM	4967	CB	ILE	B	207	-73.537	46.896	24.332	1.00	51.96	B	C
ATOM	4968	CG2	ILE	B	207	-74.571	47.420	23.379	1.00	51.22	B	C
ATOM	4969	CG1	ILE	B	207	-72.562	45.996	23.590	1.00	52.16	B	C
ATOM	4970	CD1	ILE	B	207	-73.278	44.955	22.804	1.00	54.91	B	C
ATOM	4971	C	ILE	B	207	-71.645	47.470	25.779	1.00	52.23	B	C
ATOM	4972	O	ILE	B	207	-71.841	46.851	26.816	1.00	53.42	B	O
ATOM	4973	N	LEU	B	208	-70.434	47.674	25.269	1.00	51.14	B	N
ATOM	4974	CB	LEU	B	208	-69.244	47.140	25.906	1.00	48.95	B	C
ATOM	4975	CB	LEU	B	208	-68.200	46.796	24.853	1.00	48.64	B	C
ATOM	4976	CG	LEU	B	208	-67.446	45.480	25.010	1.00	49.84	B	C
ATOM	4977	CD1	LEU	B	208	-68.411	44.311	25.123	1.00	50.40	B	C
ATOM	4978	CD2	LEU	B	208	-66.535	45.301	23.797	1.00	51.62	B	C
ATOM	4979	C	LEU	B	208	-68.693	48.171	26.856	1.00	47.52	B	C
ATOM	4980	O	LEU	B	208	-67.941	47.860	27.774	1.00	48.03	B	O
ATOM	4981	N	SER	B	209	-69.072	49.418	26.653	1.00	46.74	B	N
ATOM	4982	CB	SER	B	209	-68.561	50.488	27.510	1.00	45.53	B	C
ATOM	4983	CB	SER	B	209	-68.260	51.716	26.662	1.00	42.89	B	C
ATOM	4984	OG	SER	B	209	-69.474	52.380	26.392	1.00	37.96	B	O
ATOM	4985	C	SER	B	209	-69.629	50.863	28.508	1.00	45.79	B	C
ATOM	4986	O	SER	B	209	-70.604	50.122	28.703	1.00	48.55	B	O
ATOM	4987	N	SER	B	210	-69.461	52.005	29.156	1.00	44.94	B	N
ATOM	4988	CB	SER	B	210	-70.517	52.415	30.038	1.00	45.52	B	C
ATOM	4989	CB	SER	B	210	-71.808	52.356	29.234	1.00	48.08	B	C
ATOM	4990	OG	SER	B	210	-71.545	52.843	27.923	1.00	51.50	B	O
ATOM	4991	C	SER	B	210	-70.654	51.604	31.326	1.00	43.84	B	C
ATOM	4992	O	SER	B	210	-70.894	50.381	31.307	1.00	40.94	B	O
ATOM	4993	N	PRO	B	211	-70.539	52.313	32.466	1.00	44.30	B	N
ATOM	4994	CD	PRO	B	211	-70.597	53.782	32.361	1.00	44.10	B	C
ATOM	4995	CB	PRO	B	211	-70.603	51.935	33.872	1.00	43.60	B	C
ATOM	4996	CB	PRO	B	211	-71.569	52.949	34.430	1.00	44.52	B	C
ATOM	4997	CG	PRO	B	211	-71.113	54.199	33.730	1.00	44.91	B	C
ATOM	4998	C	PRO	B	211	-70.985	50.514	34.195	1.00	42.83	B	C
ATOM	4999	O	PRO	B	211	-70.126	49.694	34.471	1.00	44.21	B	O
ATOM	5000	N	TRP	B	212	-72.244	50.215	34.189	1.00	15.00	B	N
ATOM	5001	CB	TRP	B	212	-72.576	48.830	34.498	1.00	15.00	B	C
ATOM	5002	CB	TRP	B	212	-74.093	48.630	34.466	1.00	15.00	B	C
ATOM	5003	CG	TRP	B	212	-74.522	47.238	34.820	1.00	15.00	B	C
ATOM	5004	CD2	TRP	B	212	-74.857	46.185	33.908	1.00	15.00	B	C
ATOM	5005	CE2	TRP	B	212	-75.199	45.058	34.682	1.00	15.00	B	C
ATOM	5006	CE3	TRP	B	212	-74.841	46.066	32.515	1.00	15.00	B	C
ATOM	5007	CD1	TRP	B	212	-74.670	46.721	36.075	1.00	15.00	B	C
ATOM	5008	NE1	TRP	B	212	-75.078	45.412	36.000	1.00	15.00	B	N
ATOM	5009	C22	TRP	B	212	-75.523	43.828	34.110	1.00	15.00	B	C
ATOM	5010	C23	TRP	B	212	-75.161	44.846	31.949	1.00	15.00	B	C
ATOM	5011	CH2	TRP	B	212	-75.499	43.743	32.745	1.00	15.00	B	C
ATOM	5012	C	TRP	B	212	-71.907	47.875	33.515	1.00	15.00	B	C
ATOM	5013	O	TRP	B	212	-71.871	48.143	32.299	1.00	43.70	B	O
ATOM	5014	N	ILE	B	213	-71.290	46.874	33.991	1.00	15.00	B	N
ATOM	5015	CB	ILE	B	213	-70.524	45.816	33.343	1.00	15.00	B	C
ATOM	5016	CB	ILE	B	213	-69.741	46.355	32.130	1.00	15.00	B	C
ATOM	5017	CG2	ILE	B	213	-68.875	45.256	31.534	1.00	15.00	B	C
ATOM	5018	CG1	ILE	B	213	-70.710	46.900	31.080	1.00	15.00	B	C

Figure 1

ATOM	5019	CD1	ILE	B	213	-70.057	47.804	30.055	1.00	15.00	B	C
ATOM	5020	C	ILE	B	213	-69.540	45.178	34.318	1.00	15.00	B	C
ATOM	5021	O	ILE	B	213	-69.225	44.039	34.342	1.00	45.29	B	O
ATOM	5022	N	GLN	B	214	-69.191	46.109	35.244	1.00	45.17	B	N
ATOM	5023	CB	GLN	B	214	-68.369	45.714	36.350	1.00	45.70	B	C
ATOM	5024	CB	GLN	B	214	-67.381	46.826	36.701	1.00	46.13	B	C
ATOM	5025	CG	GLN	B	214	-66.132	46.730	35.886	1.00	46.79	B	C
ATOM	5026	CD	GLN	B	214	-65.450	45.368	36.094	1.00	48.41	B	C
ATOM	5027	OE1	GLN	B	214	-65.315	44.560	35.146	1.00	48.25	B	O
ATOM	5028	NE2	GLN	B	214	-65.032	45.101	37.344	1.00	47.05	B	N
ATOM	5029	C	GLN	B	214	-69.436	45.533	37.420	1.00	45.95	B	C
ATOM	5030	O	GLN	B	214	-69.519	46.263	38.414	1.00	47.62	B	O
ATOM	5031	N	VAL	B	215	-70.242	44.693	37.175	1.00	15.00	B	N
ATOM	5032	CB	VAL	B	215	-71.374	44.221	37.965	1.00	15.00	B	C
ATOM	5033	CB	VAL	B	215	-72.535	45.236	37.940	1.00	15.00	B	C
ATOM	5034	CG1	VAL	B	215	-73.759	44.648	38.623	1.00	15.00	B	C
ATOM	5035	CG2	VAL	B	215	-72.114	46.532	38.614	1.00	15.00	B	C
ATOM	5036	C	VAL	B	215	-71.883	42.881	37.447	1.00	15.00	B	C
ATOM	5037	O	VAL	B	215	-72.684	42.235	37.813	1.00	43.08	B	O
ATOM	5038	N	TYR	B	216	-71.080	42.701	36.351	1.00	15.00	B	N
ATOM	5039	CB	TYR	B	216	-71.174	41.445	35.618	1.00	15.00	B	C
ATOM	5040	CB	TYR	B	216	-71.548	41.711	34.158	1.00	15.00	B	C
ATOM	5041	CG	TYR	B	216	-71.715	40.457	33.330	1.00	15.00	B	C
ATOM	5042	CD1	TYR	B	216	-72.832	39.647	33.480	1.00	15.00	B	C
ATOM	5043	CE1	TYR	B	216	-72.990	38.499	32.725	1.00	15.00	B	C
ATOM	5044	CD2	TYR	B	216	-70.755	40.084	32.398	1.00	15.00	B	C
ATOM	5045	CE2	TYR	B	216	-70.905	38.938	31.640	1.00	15.00	B	C
ATOM	5046	CZ	TYR	B	216	-72.023	38.150	31.807	1.00	15.00	B	C
ATOM	5047	OH	TYR	B	216	-72.176	37.009	31.053	1.00	15.00	B	O
ATOM	5048	C	TYR	B	216	-69.861	40.674	35.682	1.00	15.00	B	C
ATOM	5049	O	TYR	B	216	-69.816	39.499	35.841	1.00	40.31	B	O
ATOM	5050	N	ASN	B	217	-68.792	41.534	35.623	1.00	15.00	B	N
ATOM	5051	CB	ASN	B	217	-67.491	40.921	35.862	1.00	15.00	B	C
ATOM	5052	CB	ASN	B	217	-66.378	41.959	35.697	1.00	15.00	B	C
ATOM	5053	CG	ASN	B	217	-66.156	42.353	34.251	1.00	15.00	B	C
ATOM	5054	OD1	ASN	B	217	-66.122	41.500	33.363	1.00	15.00	B	O
ATOM	5055	ND2	ASN	B	217	-66.000	43.648	34.006	1.00	15.00	B	N
ATOM	5056	C	ASN	B	217	-67.424	40.308	37.255	1.00	15.00	B	C
ATOM	5057	O	ASN	B	217	-67.568	39.148	37.408	1.00	36.52	B	O
ATOM	5058	N	ASN	B	218	-67.359	41.242	38.196	1.00	15.00	B	N
ATOM	5059	CB	ASN	B	218	-67.613	40.708	39.528	1.00	15.00	B	C
ATOM	5060	CB	ASN	B	218	-67.408	41.796	40.584	1.00	15.00	B	C
ATOM	5061	CG	ASN	B	218	-65.947	42.148	40.782	1.00	15.00	B	C
ATOM	5062	OD1	ASN	B	218	-65.089	41.269	40.858	1.00	15.00	B	O
ATOM	5063	ND2	ASN	B	218	-65.657	43.440	40.870	1.00	15.00	B	N
ATOM	5064	C	ASN	B	218	-69.027	40.146	39.631	1.00	15.00	B	C
ATOM	5065	O	ASN	B	218	-69.720	40.363	38.535	1.00	38.46	B	O
ATOM	5066	N	PHE	B	219	-69.461	39.522	40.579	1.00	15.00	B	N
ATOM	5067	CB	PHE	B	219	-70.837	39.078	40.763	1.00	15.00	B	C
ATOM	5068	CB	PHE	B	219	-71.649	40.157	41.483	1.00	15.00	B	C
ATOM	5069	CG	PHE	B	219	-71.829	41.415	40.682	1.00	15.00	B	C
ATOM	5070	CD1	PHE	B	219	-72.904	41.557	39.820	1.00	15.00	B	C
ATOM	5071	CD2	PHE	B	219	-70.922	42.456	40.790	1.00	15.00	B	C
ATOM	5072	CE1	PHE	B	219	-73.071	42.713	39.081	1.00	15.00	B	C
ATOM	5073	CE2	PHE	B	219	-71.085	43.615	40.054	1.00	15.00	B	C
ATOM	5074	CZ	PHE	B	219	-72.160	43.744	39.201	1.00	15.00	B	C
ATOM	5075	C	PHE	B	219	-71.489	38.747	39.425	1.00	15.00	B	C
ATOM	5076	O	PHE	B	219	-72.641	39.246	39.134	1.00	39.04	B	O
ATOM	5077	N	PRO	B	220	-70.981	37.813	38.561	1.00	39.53	B	N
ATOM	5078	CD	PRO	B	220	-69.817	36.955	38.821	1.00	39.41	B	C
ATOM	5079	CB	PRO	B	220	-71.602	37.414	37.286	1.00	40.20	B	C
ATOM	5080	CB	PRO	B	220	-70.556	36.501	36.665	1.00	39.40	B	C
ATOM	5081	CG	PRO	B	220	-70.058	35.793	37.841	1.00	39.30	B	C
ATOM	5082	C	PRO	B	220	-72.921	36.673	37.458	1.00	42.68	B	C
ATOM	5083	O	PRO	B	220	-73.262	35.793	36.668	1.00	44.59	B	O
ATOM	5084	N	ALB	B	221	-73.655	36.998	38.507	1.00	44.49	B	N
ATOM	5085	CB	ALB	B	221	-74.930	36.344	38.730	1.00	43.86	B	C
ATOM	5086	CB	ALB	B	221	-75.567	36.875	40.008	1.00	45.60	B	C
ATOM	5087	C	ALB	B	221	-75.819	36.642	37.535	1.00	43.51	B	C
ATOM	5088	O	ALB	B	221	-76.506	35.751	37.050	1.00	43.21	B	O
ATOM	5089	N	LEU	B	222	-75.800	37.879	37.035	1.00	15.00	B	N
ATOM	5090	CB	LEU	B	222	-76.645	38.255	35.907	1.00	15.00	B	C
ATOM	5091	CB	LEU	B	222	-76.400	39.718	35.527	1.00	15.00	B	C
ATOM	5092	CG	LEU	B	222	-76.727	40.761	36.600	1.00	15.00	B	C
ATOM	5093	CD1	LEU	B	222	-76.205	42.124	36.173	1.00	15.00	B	C

Figure 1

ATOM	5094	CD2	LEU	B	222	-78.227	40.809	36.834	1.00	15.00	B	C
ATOM	5095	C	LEU	B	222	-76.381	37.358	34.703	1.00	15.00	B	C
ATOM	5096	O	LEU	B	222	-75.448	37.563	33.903	1.00	47.42	B	O
ATOM	5097	N	LEU	B	223	-77.084	36.406	34.617	1.00	15.00	B	N
ATOM	5098	CB	LEU	B	223	-77.476	35.550	33.502	1.00	15.00	B	C
ATOM	5099	CB	LEU	B	223	-77.133	34.090	33.809	1.00	15.00	B	C
ATOM	5100	CG	LEU	B	223	-75.649	33.772	34.016	1.00	15.00	B	C
ATOM	5101	CD1	LEU	B	223	-75.493	32.357	34.549	1.00	15.00	B	C
ATOM	5102	CD2	LEU	B	223	-74.898	33.939	32.706	1.00	15.00	B	C
ATOM	5103	C	LEU	B	223	-78.969	35.680	33.213	1.00	15.00	B	C
ATOM	5104	O	LEU	B	223	-79.663	35.017	32.615	1.00	54.92	B	O
ATOM	5105	N	ASP	B	224	-79.422	36.654	34.239	1.00	15.00	B	N
ATOM	5106	CB	ASP	B	224	-80.547	37.549	33.992	1.00	15.00	B	C
ATOM	5107	CB	ASP	B	224	-80.894	38.326	35.265	1.00	15.00	B	C
ATOM	5108	CG	ASP	B	224	-81.509	37.443	36.334	1.00	15.00	B	C
ATOM	5109	OD1	ASP	B	224	-82.208	36.472	35.977	1.00	15.00	B	O
ATOM	5110	OD2	ASP	B	224	-81.292	37.722	37.532	1.00	15.00	B	O
ATOM	5111	C	ASP	B	224	-80.232	38.524	32.863	1.00	15.00	B	C
ATOM	5112	O	ASP	B	224	-79.093	39.140	33.032	1.00	15.00	B	O
ATOM	5113	N	TYR	B	225	-80.420	38.151	31.610	1.00	15.00	B	N
ATOM	5114	CB	TYR	B	225	-79.604	38.286	30.410	1.00	15.00	B	C
ATOM	5115	CB	TYR	B	225	-80.232	37.507	29.251	1.00	15.00	B	C
ATOM	5116	CG	TYR	B	225	-80.290	36.013	29.477	1.00	15.00	B	C
ATOM	5117	CD1	TYR	B	225	-81.474	35.394	29.856	1.00	15.00	B	C
ATOM	5118	CE1	TYR	B	225	-81.532	34.029	30.062	1.00	15.00	B	C
ATOM	5119	CD2	TYR	B	225	-79.161	35.223	29.313	1.00	15.00	B	C
ATOM	5120	CE2	TYR	B	225	-79.210	33.856	29.517	1.00	15.00	B	C
ATOM	5121	CZ	TYR	B	225	-80.397	33.265	29.892	1.00	15.00	B	C
ATOM	5122	OH	TYR	B	225	-80.449	31.906	30.097	1.00	15.00	B	O
ATOM	5123	C	TYR	B	225	-79.443	39.751	30.019	1.00	15.00	B	C
ATOM	5124	O	TYR	B	225	-78.418	40.055	29.308	1.00	73.66	B	O
ATOM	5125	N	PHE	B	226	-80.344	40.498	30.571	1.00	80.51	B	N
ATOM	5126	CB	PHE	B	226	-80.193	41.891	30.727	1.00	82.70	B	C
ATOM	5127	CB	PHE	B	226	-78.900	42.369	31.361	1.00	84.50	B	C
ATOM	5128	CG	PHE	B	226	-78.990	43.606	32.193	1.00	84.75	B	C
ATOM	5129	CD1	PHE	B	226	-78.905	44.858	31.619	1.00	85.57	B	C
ATOM	5130	CD2	PHE	B	226	-79.194	43.490	33.565	1.00	85.01	B	C
ATOM	5131	CE1	PHE	B	226	-79.025	45.993	32.402	1.00	84.36	B	C
ATOM	5132	CE2	PHE	B	226	-79.320	44.617	34.341	1.00	83.59	B	C
ATOM	5133	CZ	PHE	B	226	-79.230	45.863	33.756	1.00	83.07	B	C
ATOM	5134	C	PHE	B	226	-80.624	42.765	29.588	1.00	84.91	B	C
ATOM	5135	O	PHE	B	226	-81.227	43.818	29.742	1.00	84.55	B	O
ATOM	5136	N	PRO	B	227	-80.390	42.416	28.321	1.00	82.22	B	N
ATOM	5137	CD	PRO	B	227	-81.460	42.904	27.435	1.00	81.81	B	C
ATOM	5138	CB	PRO	B	227	-79.776	41.216	27.725	1.00	80.08	B	C
ATOM	5139	CB	PRO	B	227	-80.828	40.754	26.703	1.00	80.60	B	C
ATOM	5140	CG	PRO	B	227	-82.092	41.613	27.026	1.00	81.08	B	C
ATOM	5141	C	PRO	B	227	-78.425	41.552	27.080	1.00	80.26	B	C
ATOM	5142	O	PRO	B	227	-78.327	41.798	25.874	1.00	78.06	B	O
ATOM	5143	N	GLY	B	228	-77.383	41.566	27.911	1.00	80.12	B	N
ATOM	5144	CB	GLY	B	228	-76.033	41.898	27.459	1.00	79.49	B	C
ATOM	5145	C	GLY	B	228	-75.335	40.934	26.513	1.00	79.54	B	C
ATOM	5146	O	GLY	B	228	-75.303	41.179	25.313	1.00	79.62	B	O
ATOM	5147	N	THR	B	229	-75.649	39.933	27.077	1.00	15.00	B	N
ATOM	5148	CB	THR	B	229	-74.955	38.938	26.269	1.00	15.00	B	C
ATOM	5149	CB	THR	B	229	-74.397	37.799	27.143	1.00	15.00	B	C
ATOM	5150	OG1	THR	B	229	-73.455	38.332	28.082	1.00	15.00	B	O
ATOM	5151	CG2	THR	B	229	-73.708	36.755	26.278	1.00	15.00	B	C
ATOM	5152	C	THR	B	229	-75.886	38.340	25.220	1.00	15.00	B	C
ATOM	5153	O	THR	B	229	-75.692	38.476	24.019	1.00	80.84	B	O
ATOM	5154	N	HIS	B	230	-75.972	37.529	25.711	1.00	81.54	B	N
ATOM	5155	CB	HIS	B	230	-76.952	36.823	24.905	1.00	80.85	B	C
ATOM	5156	CB	HIS	B	230	-77.963	36.099	25.802	1.00	82.82	B	C
ATOM	5157	CG	HIS	B	230	-78.670	34.977	25.105	1.00	85.21	B	C
ATOM	5158	CD2	HIS	B	230	-79.975	34.799	24.786	1.00	86.94	B	C
ATOM	5159	ND1	HIS	B	230	-78.004	33.882	24.599	1.00	86.71	B	N
ATOM	5160	CE1	HIS	B	230	-78.862	33.075	24.000	1.00	87.15	B	C
ATOM	5161	NE2	HIS	B	230	-80.066	33.608	24.100	1.00	87.71	B	N
ATOM	5162	C	HIS	B	230	-77.718	37.674	23.914	1.00	79.02	B	C
ATOM	5163	O	HIS	B	230	-78.827	37.307	23.539	1.00	78.82	B	O
ATOM	5164	N	ASN	B	231	-77.172	38.822	23.490	1.00	15.00	B	N
ATOM	5165	CB	ASN	B	231	-77.988	39.555	22.531	1.00	15.00	B	C
ATOM	5166	CB	ASN	B	231	-78.955	40.491	23.261	1.00	15.00	B	C
ATOM	5167	CG	ASN	B	231	-80.077	39.744	23.955	1.00	15.00	B	C
ATOM	5168	OD1	ASN	B	231	-80.669	38.825	23.387	1.00	15.00	B	O

Figure 1

ATOM	5169	ND2	ASN	B	231	-80.378	40.137	25.186	1.00	15.00	B	N
ATOM	5170	C	ASN	B	231	-77.116	40.359	21.573	1.00	15.00	B	C
ATOM	5171	O	ASN	B	231	-76.411	39.765	20.759	1.00	71.12	B	O
ATOM	5172	N	LYS	B	232	-77.543	41.548	22.091	1.00	15.00	B	N
ATOM	5173	CB	LYS	B	232	-76.863	42.418	21.141	1.00	15.00	B	C
ATOM	5174	CB	LYS	B	232	-76.969	43.879	21.590	1.00	15.00	B	C
ATOM	5175	CG	LYS	B	232	-78.367	44.463	21.478	1.00	15.00	B	C
ATOM	5176	CD	LYS	B	232	-78.393	45.919	21.916	1.00	15.00	B	C
ATOM	5177	CE	LYS	B	232	-79.792	46.502	21.805	1.00	15.00	B	C
ATOM	5178	NZ	LYS	B	232	-79.834	47.930	22.232	1.00	15.00	B	N
ATOM	5179	C	LYS	B	232	-75.396	42.029	20.994	1.00	15.00	B	C
ATOM	5180	O	LYS	B	232	-74.853	42.041	19.859	1.00	64.62	B	O
ATOM	5181	N	LEU	B	233	-74.378	41.762	21.614	1.00	60.06	B	N
ATOM	5182	CB	LEU	B	233	-72.978	41.354	21.595	1.00	55.48	B	C
ATOM	5183	CB	LEU	B	233	-72.507	41.033	23.012	1.00	54.82	B	C
ATOM	5184	CG	LEU	B	233	-71.681	42.136	23.679	1.00	52.33	B	C
ATOM	5185	CD1	LEU	B	233	-71.156	41.684	25.024	1.00	51.29	B	C
ATOM	5186	CD2	LEU	B	233	-70.542	42.484	22.765	1.00	51.85	B	C
ATOM	5187	C	LEU	B	233	-72.778	40.127	20.715	1.00	53.90	B	C
ATOM	5188	O	LEU	B	233	-72.143	40.192	19.665	1.00	53.05	B	O
ATOM	5189	N	LEU	B	234	-73.341	39.008	21.156	1.00	53.45	B	N
ATOM	5190	CB	LEU	B	234	-73.233	37.748	20.442	1.00	51.59	B	C
ATOM	5191	CB	LEU	B	234	-73.993	36.642	21.187	1.00	50.95	B	C
ATOM	5192	CG	LEU	B	234	-73.203	35.410	21.628	1.00	50.06	B	C
ATOM	5193	CD1	LEU	B	234	-71.942	35.292	20.785	1.00	51.42	B	C
ATOM	5194	CD2	LEU	B	234	-72.859	35.509	23.094	1.00	49.03	B	C
ATOM	5195	C	LEU	B	234	-73.733	37.819	19.013	1.00	51.24	B	C
ATOM	5196	O	LEU	B	234	-73.137	37.218	18.124	1.00	51.48	B	O
ATOM	5197	N	LYS	B	235	-74.825	38.546	18.786	1.00	51.05	B	N
ATOM	5198	CB	LYS	B	235	-75.315	38.584	17.414	1.00	51.65	B	C
ATOM	5199	CB	LYS	B	235	-76.780	39.031	17.387	1.00	54.50	B	C
ATOM	5200	CG	LYS	B	235	-77.054	40.201	16.457	1.00	59.35	B	C
ATOM	5201	CD	LYS	B	235	-78.523	40.591	16.480	1.00	63.07	B	C
ATOM	5202	CE	LYS	B	235	-78.797	41.761	15.549	1.00	65.70	B	C
ATOM	5203	NZ	LYS	B	235	-80.234	42.155	15.561	1.00	65.87	B	N
ATOM	5204	C	LYS	B	235	-74.473	39.522	16.558	1.00	50.30	B	C
ATOM	5205	O	LYS	B	235	-74.111	39.150	15.455	1.00	50.44	B	O
ATOM	5206	N	ASN	B	236	-74.109	40.688	17.069	1.00	49.30	B	N
ATOM	5207	CB	ASN	B	236	-73.273	41.576	16.276	1.00	48.34	B	C
ATOM	5208	CB	ASN	B	236	-72.979	42.869	17.025	1.00	49.19	B	C
ATOM	5209	CG	ASN	B	236	-74.214	43.713	17.213	1.00	50.75	B	C
ATOM	5210	OD1	ASN	B	236	-74.149	44.838	17.696	1.00	51.34	B	O
ATOM	5211	ND2	ASN	B	236	-75.356	43.167	16.833	1.00	52.82	B	N
ATOM	5212	C	ASN	B	236	-71.974	40.870	15.928	1.00	47.92	B	C
ATOM	5213	O	ASN	B	236	-71.510	40.949	14.796	1.00	47.43	B	O
ATOM	5214	N	VAL	B	237	-71.397	40.192	16.900	1.00	15.00	B	N
ATOM	5215	CB	VAL	B	237	-70.163	39.479	16.601	1.00	15.00	B	C
ATOM	5216	CB	VAL	B	237	-69.561	38.844	17.871	1.00	15.00	B	C
ATOM	5217	CG1	VAL	B	237	-68.375	37.966	17.506	1.00	15.00	B	C
ATOM	5218	CG2	VAL	B	237	-69.145	39.928	18.852	1.00	15.00	B	C
ATOM	5219	C	VAL	B	237	-70.402	38.381	15.570	1.00	15.00	B	C
ATOM	5220	O	VAL	B	237	-69.520	37.700	15.117	1.00	47.86	B	O
ATOM	5221	CB	ALB	B	238	-73.437	36.795	14.115	1.00	15.00	B	C
ATOM	5222	C	ALB	B	238	-72.276	38.169	12.379	1.00	15.00	B	C
ATOM	5223	O	ALB	B	238	-71.715	37.773	11.394	1.00	51.74	B	O
ATOM	5224	N	ALB	B	238	-71.705	38.425	14.782	1.00	15.00	B	N
ATOM	5225	CB	ALB	B	238	-72.127	37.465	13.723	1.00	15.00	B	C
ATOM	5226	N	PHE	B	239	-73.004	39.109	12.858	1.00	50.57	B	N
ATOM	5227	CB	PHE	B	239	-73.206	39.877	11.644	1.00	50.13	B	C
ATOM	5228	CB	PHE	B	239	-73.907	41.188	11.933	1.00	49.83	B	C
ATOM	5229	CG	PHE	B	239	-74.077	42.047	10.724	1.00	51.21	B	C
ATOM	5230	CD1	PHE	B	239	-73.916	43.416	10.813	1.00	53.04	B	C
ATOM	5231	CD2	PHE	B	239	-74.415	41.493	9.495	1.00	51.74	B	C
ATOM	5232	CE1	PHE	B	239	-74.087	44.229	9.697	1.00	53.55	B	C
ATOM	5233	CE2	PHE	B	239	-74.590	42.293	8.374	1.00	52.66	B	C
ATOM	5234	CZ	PHE	B	239	-74.426	43.666	8.475	1.00	53.31	B	C
ATOM	5235	C	PHE	B	239	-71.871	40.179	11.004	1.00	50.44	B	C
ATOM	5236	O	PHE	B	239	-71.774	40.306	9.792	1.00	52.03	B	O
ATOM	5237	N	MET	B	240	-70.837	40.310	11.824	1.00	51.45	B	N
ATOM	5238	CB	MET	B	240	-69.511	40.588	11.305	1.00	50.48	B	C
ATOM	5239	CB	MET	B	240	-68.640	41.218	12.388	1.00	50.14	B	C
ATOM	5240	CG	MET	B	240	-69.199	42.541	12.898	1.00	49.09	B	C
ATOM	5241	SD	MET	B	240	-68.398	43.135	14.374	1.00	48.50	B	S
ATOM	5242	CE	MET	B	240	-66.955	43.792	13.657	1.00	49.65	B	C
ATOM	5243	C	MET	B	240	-68.899	39.293	10.792	1.00	50.30	B	C

Figure 1

ATOM	5244	O	MET	B	240	-68.456	39.245	9.655	1.00	51.04	B	O
ATOM	5245	N	LYS	B	241	-68.886	38.236	11.601	1.00	50.16	B	N
ATOM	5246	CB	LYS	B	241	-68.314	36.971	11.137	1.00	50.55	B	C
ATOM	5247	CB	LYS	B	241	-68.484	35.869	12.176	1.00	48.54	B	C
ATOM	5248	CG	LYS	B	241	-67.668	36.037	13.426	1.00	49.64	B	C
ATOM	5249	CD	LYS	B	241	-67.990	34.935	14.423	1.00	51.04	B	C
ATOM	5250	CE	LYS	B	241	-67.163	35.018	15.709	1.00	52.81	B	C
ATOM	5251	NZ	LYS	B	241	-65.716	34.724	15.533	1.00	54.80	B	N
ATOM	5252	C	LYS	B	241	-68.975	36.504	9.842	1.00	51.60	B	C
ATOM	5253	O	LYS	B	241	-68.319	35.935	8.969	1.00	51.32	B	O
ATOM	5254	N	SER	B	242	-70.275	36.737	9.713	1.00	52.89	B	N
ATOM	5255	CB	SER	B	242	-70.968	36.287	8.519	1.00	54.93	B	C
ATOM	5256	CB	SER	B	242	-72.479	36.382	8.704	1.00	56.26	B	C
ATOM	5257	OG	SER	B	242	-73.091	35.170	8.297	1.00	57.50	B	O
ATOM	5258	C	SER	B	242	-70.536	37.079	7.299	1.00	55.84	B	C
ATOM	5259	O	SER	B	242	-70.191	36.494	6.274	1.00	57.65	B	O
ATOM	5260	N	TYR	B	243	-70.551	38.405	7.420	1.00	55.46	B	N
ATOM	5261	CB	TYR	B	243	-70.138	39.301	6.341	1.00	54.27	B	C
ATOM	5262	CB	TYR	B	243	-70.241	40.761	6.792	1.00	54.42	B	C
ATOM	5263	CG	TYR	B	243	-69.672	41.751	5.806	1.00	54.85	B	C
ATOM	5264	CD1	TYR	B	243	-70.215	41.881	4.539	1.00	55.46	B	C
ATOM	5265	CE1	TYR	B	243	-69.672	42.760	3.608	1.00	56.37	B	C
ATOM	5266	CD2	TYR	B	243	-68.567	42.531	6.128	1.00	55.88	B	C
ATOM	5267	CE2	TYR	B	243	-68.013	43.418	5.202	1.00	56.15	B	C
ATOM	5268	CZ	TYR	B	243	-68.568	43.525	3.943	1.00	56.24	B	C
ATOM	5269	OH	TYR	B	243	-68.010	44.381	3.017	1.00	55.65	B	O
ATOM	5270	C	TYR	B	243	-68.703	39.004	5.949	1.00	54.18	B	C
ATOM	5271	O	TYR	B	243	-68.347	39.044	4.776	1.00	54.53	B	O
ATOM	5272	N	ILE	B	244	-67.877	38.698	6.939	1.00	53.69	B	N
ATOM	5273	CB	ILE	B	244	-66.488	38.395	6.669	1.00	53.32	B	C
ATOM	5274	CB	ILE	B	244	-65.650	38.394	7.967	1.00	52.59	B	C
ATOM	5275	CG2	ILE	B	244	-64.225	37.957	7.666	1.00	51.66	B	C
ATOM	5276	CG1	ILE	B	244	-65.612	39.800	8.566	1.00	51.93	B	C
ATOM	5277	CD1	ILE	B	244	-64.811	39.894	9.836	1.00	52.01	B	C
ATOM	5278	C	ILE	B	244	-66.361	37.047	5.974	1.00	54.63	B	C
ATOM	5279	O	ILE	B	244	-65.617	36.919	5.005	1.00	55.12	B	O
ATOM	5280	N	LEU	B	245	-67.086	36.040	6.460	1.00	55.14	B	N
ATOM	5281	CB	LEU	B	245	-67.039	34.709	5.853	1.00	55.40	B	C
ATOM	5282	CB	LEU	B	245	-67.904	33.738	6.652	1.00	55.36	B	C
ATOM	5283	CG	LEU	B	245	-67.740	32.230	6.428	1.00	55.00	B	C
ATOM	5284	CD1	LEU	B	245	-68.407	31.827	5.154	1.00	55.06	B	C
ATOM	5285	CD2	LEU	B	245	-66.268	31.844	6.423	1.00	55.99	B	C
ATOM	5286	C	LEU	B	245	-67.551	34.848	4.421	1.00	55.87	B	C
ATOM	5287	O	LEU	B	245	-67.139	34.120	3.523	1.00	55.71	B	O
ATOM	5288	N	GLU	B	246	-68.435	35.815	4.215	1.00	56.97	B	N
ATOM	5289	CB	GLU	B	246	-68.988	36.104	2.901	1.00	58.41	B	C
ATOM	5290	CB	GLU	B	246	-70.005	37.247	3.020	1.00	61.24	B	C
ATOM	5291	CG	GLU	B	246	-71.000	37.396	1.882	1.00	64.45	B	C
ATOM	5292	CD	GLU	B	246	-71.792	38.691	1.993	1.00	67.57	B	C
ATOM	5293	OE1	GLU	B	246	-72.233	39.027	3.113	1.00	67.23	B	O
ATOM	5294	OE2	GLU	B	246	-71.972	39.378	0.960	1.00	70.46	B	O
ATOM	5295	C	GLU	B	246	-67.815	36.543	2.017	1.00	57.77	B	C
ATOM	5296	O	GLU	B	246	-67.737	36.178	0.851	1.00	57.83	B	O
ATOM	5297	N	LYS	B	247	-66.899	37.325	2.581	1.00	57.51	B	N
ATOM	5298	CB	LYS	B	247	-65.744	37.800	1.826	1.00	57.29	B	C
ATOM	5299	CB	LYS	B	247	-65.076	38.976	2.539	1.00	57.37	B	C
ATOM	5300	CG	LYS	B	247	-65.309	40.313	1.878	1.00	57.43	B	C
ATOM	5301	CD	LYS	B	247	-66.743	40.738	2.011	1.00	58.58	B	C
ATOM	5302	CE	LYS	B	247	-67.095	41.872	1.057	1.00	59.89	B	C
ATOM	5303	NZ	LYS	B	247	-66.367	43.132	1.350	1.00	60.46	B	N
ATOM	5304	C	LYS	B	247	-64.712	36.704	1.634	1.00	57.41	B	C
ATOM	5305	O	LYS	B	247	-64.047	36.632	0.604	1.00	58.07	B	O
ATOM	5306	N	VAL	B	248	-64.569	35.857	2.645	1.00	56.82	B	N
ATOM	5307	CB	VAL	B	248	-63.602	34.770	2.600	1.00	55.55	B	C
ATOM	5308	CB	VAL	B	248	-63.702	33.905	3.828	1.00	54.39	B	C
ATOM	5309	CG1	VAL	B	248	-62.695	32.779	3.738	1.00	52.73	B	C
ATOM	5310	CG2	VAL	B	248	-63.481	34.751	5.061	1.00	54.55	B	C
ATOM	5311	C	VAL	B	248	-63.849	33.881	1.420	1.00	56.37	B	C
ATOM	5312	O	VAL	B	248	-62.952	33.200	0.927	1.00	56.51	B	O
ATOM	5313	N	LYS	B	249	-65.101	33.878	0.996	1.00	57.80	B	N
ATOM	5314	CB	LYS	B	249	-65.541	33.076	-0.123	1.00	58.67	B	C
ATOM	5315	CB	LYS	B	249	-67.058	33.180	-0.227	1.00	59.70	B	C
ATOM	5316	CG	LYS	B	249	-67.830	31.878	-0.037	1.00	61.09	B	C
ATOM	5317	CD	LYS	B	249	-67.603	31.211	1.314	1.00	61.95	B	C
ATOM	5318	CE	LYS	B	249	-68.730	30.215	1.635	1.00	64.07	B	C

Figure 1

ATOM	5319	NZ	LYS	B	249	-68.965	29.164	0.586	1.00	65.47	B	N
ATOM	5320	C	LYS	B	249	-64.886	33.607	-1.387	1.00	59.04	B	C
ATOM	5321	O	LYS	B	249	-64.027	32.951	-1.980	1.00	59.06	B	O
ATOM	5322	N	GLU	B	250	-65.294	34.812	-1.774	1.00	59.41	B	N
ATOM	5323	CB	GLU	B	250	-64.790	35.476	-2.967	1.00	60.48	B	C
ATOM	5324	CB	GLU	B	250	-65.179	36.951	-2.936	1.00	61.75	B	C
ATOM	5325	CG	GLU	B	250	-66.623	37.198	-2.589	1.00	65.17	B	C
ATOM	5326	CD	GLU	B	250	-66.986	38.678	-2.652	1.00	68.59	B	C
ATOM	5327	OE1	GLU	B	250	-68.184	39.018	-2.447	1.00	70.41	B	O
ATOM	5328	OE2	GLU	B	250	-66.071	39.502	-2.907	1.00	70.14	B	O
ATOM	5329	C	GLU	B	250	-63.282	35.365	-3.143	1.00	60.67	B	C
ATOM	5330	O	GLU	B	250	-62.769	35.515	-4.242	1.00	61.19	B	O
ATOM	5331	N	HIS	B	251	-62.562	35.102	-2.064	1.00	61.40	B	N
ATOM	5332	CB	HIS	B	251	-61.116	34.994	-2.157	1.00	62.36	B	C
ATOM	5333	CB	HIS	B	251	-60.488	35.322	-0.804	1.00	61.00	B	C
ATOM	5334	CG	HIS	B	251	-60.294	36.787	-0.584	1.00	59.13	B	C
ATOM	5335	CD2	HIS	B	251	-59.233	37.491	-0.125	1.00	57.69	B	C
ATOM	5336	ND1	HIS	B	251	-61.264	37.715	-0.896	1.00	59.08	B	N
ATOM	5337	CE1	HIS	B	251	-60.808	38.928	-0.644	1.00	58.34	B	C
ATOM	5338	NE2	HIS	B	251	-59.577	38.820	-0.175	1.00	57.79	B	N
ATOM	5339	C	HIS	B	251	-60.643	33.643	-2.652	1.00	63.76	B	C
ATOM	5340	O	HIS	B	251	-59.609	33.553	-3.321	1.00	64.61	B	O
ATOM	5341	N	GLN	B	252	-61.409	32.604	-2.323	1.00	64.48	B	N
ATOM	5342	CB	GLN	B	252	-61.093	31.242	-2.730	1.00	64.84	B	C
ATOM	5343	CB	GLN	B	252	-61.847	30.242	-1.856	1.00	64.69	B	C
ATOM	5344	CG	GLN	B	252	-61.809	30.541	-0.371	1.00	64.67	B	C
ATOM	5345	CD	GLN	B	252	-61.987	29.287	0.495	1.00	65.10	B	C
ATOM	5346	OE1	GLN	B	252	-61.162	28.367	0.448	1.00	65.05	B	O
ATOM	5347	NE2	GLN	B	252	-63.061	29.249	1.286	1.00	64.27	B	N
ATOM	5348	C	GLN	B	252	-61.523	31.078	-4.186	1.00	65.86	B	C
ATOM	5349	O	GLN	B	252	-60.880	30.374	-4.964	1.00	65.78	B	O
ATOM	5350	N	GLU	B	253	-62.604	31.759	-4.549	1.00	67.35	B	N
ATOM	5351	CB	GLU	B	253	-63.131	31.701	-5.906	1.00	69.76	B	C
ATOM	5352	CB	GLU	B	253	-64.458	32.461	-6.008	1.00	71.14	B	C
ATOM	5353	CG	GLU	B	253	-65.262	32.135	-7.263	1.00	73.16	B	C
ATOM	5354	CD	GLU	B	253	-66.085	30.851	-7.110	1.00	74.52	B	C
ATOM	5355	OE1	GLU	B	253	-66.668	30.402	-8.118	1.00	76.10	B	O
ATOM	5356	OE2	GLU	B	253	-66.160	30.295	-5.985	1.00	74.02	B	O
ATOM	5357	C	GLU	B	253	-62.144	32.320	-6.880	1.00	70.91	B	C
ATOM	5358	O	GLU	B	253	-62.288	32.177	-8.095	1.00	71.52	B	O
ATOM	5359	N	SER	B	254	-61.145	33.015	-6.344	1.00	72.24	B	N
ATOM	5360	CB	SER	B	254	-60.139	33.666	-7.175	1.00	73.60	B	C
ATOM	5361	CB	SER	B	254	-60.580	35.098	-7.522	1.00	73.40	B	C
ATOM	5362	OG	SER	B	254	-60.762	35.893	-6.361	1.00	73.52	B	O
ATOM	5363	C	SER	B	254	-58.756	33.695	-6.521	1.00	74.46	B	C
ATOM	5364	O	SER	B	254	-58.008	34.661	-6.681	1.00	75.62	B	O
ATOM	5365	N	MET	B	255	-58.416	32.641	-5.788	1.00	74.80	B	N
ATOM	5366	CB	MET	B	255	-57.115	32.571	-5.138	1.00	75.49	B	C
ATOM	5367	CB	MET	B	255	-57.070	31.397	-4.150	1.00	75.95	B	C
ATOM	5368	CG	MET	B	255	-57.325	31.794	-2.699	1.00	75.82	B	C
ATOM	5369	SD	MET	B	255	-56.105	32.987	-2.083	1.00	77.15	B	S
ATOM	5370	CE	MET	B	255	-54.700	31.883	-1.560	1.00	75.86	B	C
ATOM	5371	C	MET	B	255	-56.035	32.401	-6.204	1.00	76.23	B	C
ATOM	5372	O	MET	B	255	-56.319	31.916	-7.306	1.00	76.92	B	O
ATOM	5373	N	ASP	B	256	-54.808	32.814	-5.884	1.00	76.22	B	N
ATOM	5374	CB	ASP	B	256	-53.700	32.700	-6.821	1.00	76.51	B	C
ATOM	5375	CB	ASP	B	256	-53.240	34.076	-7.297	1.00	76.57	B	C
ATOM	5376	CG	ASP	B	256	-52.326	34.006	-8.528	1.00	76.22	B	C
ATOM	5377	OD1	ASP	B	256	-51.416	33.146	-8.575	1.00	74.87	B	O
ATOM	5378	OD2	ASP	B	256	-52.518	34.832	-9.450	1.00	76.70	B	O
ATOM	5379	C	ASP	B	256	-52.508	31.984	-6.232	1.00	77.63	B	C
ATOM	5380	O	ASP	B	256	-52.157	32.172	-5.068	1.00	76.88	B	O
ATOM	5381	N	MET	B	257	-51.881	31.171	-7.071	1.00	79.66	B	N
ATOM	5382	CB	MET	B	257	-50.704	30.406	-6.690	1.00	81.17	B	C
ATOM	5383	CB	MET	B	257	-50.308	29.450	-7.837	1.00	82.86	B	C
ATOM	5384	CG	MET	B	257	-51.477	28.772	-8.588	1.00	84.55	B	C
ATOM	5385	SD	MET	B	257	-52.607	27.748	-7.590	1.00	87.38	B	S
ATOM	5386	CE	MET	B	257	-52.087	26.050	-8.019	1.00	86.08	B	C
ATOM	5387	C	MET	B	257	-49.559	31.392	-6.418	1.00	79.99	B	C
ATOM	5388	O	MET	B	257	-49.193	32.176	-7.298	1.00	79.70	B	O
ATOM	5389	N	ASN	B	258	-48.999	31.355	-5.211	1.00	78.36	B	N
ATOM	5390	CB	ASN	B	258	-47.901	32.257	-4.876	1.00	76.90	B	C
ATOM	5391	CB	ASN	B	258	-46.592	31.782	-5.532	1.00	79.68	B	C
ATOM	5392	CG	ASN	B	258	-45.918	30.657	-4.752	1.00	82.12	B	C
ATOM	5393	OD1	ASN	B	258	-45.645	30.795	-3.550	1.00	82.00	B	O

Figure 1

ATOM	5394	ND2	ASN	B	258	-45.631	29.546	-5.434	1.00	84.05	B	N
ATOM	5395	C	ASN	B	258	-48.220	33.680	-5.334	1.00	73.82	B	C
ATOM	5396	O	ASN	B	258	-47.477	34.289	-6.106	1.00	73.38	B	O
ATOM	5397	N	ASN	B	259	-49.341	34.202	-4.866	1.00	70.35	B	N
ATOM	5398	CB	ASN	B	259	-49.734	35.551	-5.218	1.00	66.80	B	C
ATOM	5399	CB	ASN	B	259	-50.194	35.603	-6.669	1.00	68.20	B	C
ATOM	5400	CG	ASN	B	259	-49.105	36.082	-7.600	1.00	69.24	B	C
ATOM	5401	OD1	ASN	B	259	-48.716	37.254	-7.570	1.00	69.66	B	O
ATOM	5402	ND2	ASN	B	259	-48.594	35.175	-8.432	1.00	69.60	B	N
ATOM	5403	C	ASN	B	259	-50.811	36.116	-4.315	1.00	63.70	B	C
ATOM	5404	O	ASN	B	259	-51.898	36.473	-4.783	1.00	64.00	B	O
ATOM	5405	N	PRO	B	260	-50.535	36.178	-3.000	1.00	59.83	B	N
ATOM	5406	CD	PRO	B	260	-49.503	35.421	-2.278	1.00	59.36	B	C
ATOM	5407	CB	PRO	B	260	-51.500	36.716	-2.049	1.00	57.04	B	C
ATOM	5408	CB	PRO	B	260	-50.929	36.285	-0.707	1.00	57.37	B	C
ATOM	5409	CG	PRO	B	260	-50.223	35.030	-1.029	1.00	57.45	B	C
ATOM	5410	C	PRO	B	260	-51.517	38.224	-2.208	1.00	54.91	B	C
ATOM	5411	O	PRO	B	260	-50.604	38.792	-2.795	1.00	54.39	B	O
ATOM	5412	N	GLN	B	261	-52.559	38.870	-1.701	1.00	53.20	B	N
ATOM	5413	CB	GLN	B	261	-52.654	40.312	-1.800	1.00	52.09	B	C
ATOM	5414	CB	GLN	B	261	-53.439	40.716	-3.046	1.00	54.11	B	C
ATOM	5415	CG	GLN	B	261	-52.766	40.363	-4.365	1.00	57.72	B	C
ATOM	5416	CD	GLN	B	261	-52.248	41.585	-5.113	1.00	60.84	B	C
ATOM	5417	OE1	GLN	B	261	-51.538	42.428	-4.537	1.00	61.87	B	O
ATOM	5418	NE2	GLN	B	261	-52.590	41.687	-6.409	1.00	60.36	B	N
ATOM	5419	C	GLN	B	261	-53.305	40.905	-0.565	1.00	50.88	B	C
ATOM	5420	O	GLN	B	261	-53.600	42.096	-0.529	1.00	50.66	B	O
ATOM	5421	N	ASP	B	262	-53.543	40.073	0.443	1.00	49.18	B	N
ATOM	5422	CB	ASP	B	262	-54.130	40.553	1.682	1.00	47.97	B	C
ATOM	5423	CB	ASP	B	262	-55.493	41.189	1.426	1.00	49.09	B	C
ATOM	5424	CG	ASP	B	262	-56.452	40.252	0.759	1.00	50.50	B	C
ATOM	5425	OD1	ASP	B	262	-57.500	40.726	0.267	1.00	51.13	B	O
ATOM	5426	OD2	ASP	B	262	-56.159	39.038	0.735	1.00	50.59	B	O
ATOM	5427	C	ASP	B	262	-54.216	39.464	2.732	1.00	46.89	B	C
ATOM	5428	O	ASP	B	262	-53.787	38.339	2.501	1.00	46.73	B	O
ATOM	5429	N	PHE	B	263	-54.763	39.807	3.891	1.00	46.65	B	N
ATOM	5430	CB	PHE	B	263	-54.838	38.880	5.019	1.00	46.66	B	C
ATOM	5431	CB	PHE	B	263	-55.572	39.525	6.180	1.00	44.94	B	C
ATOM	5432	CG	PHE	B	263	-55.368	38.820	7.478	1.00	43.83	B	C
ATOM	5433	CD1	PHE	B	263	-54.160	38.925	8.152	1.00	44.04	B	C
ATOM	5434	CD2	PHE	B	263	-56.382	38.052	8.034	1.00	44.22	B	C
ATOM	5435	CE1	PHE	B	263	-53.957	38.276	9.366	1.00	44.82	B	C
ATOM	5436	CE2	PHE	B	263	-56.194	37.394	9.250	1.00	44.68	B	C
ATOM	5437	CZ	PHE	B	263	-54.979	37.509	9.918	1.00	44.96	B	C
ATOM	5438	C	PHE	B	263	-55.472	37.532	4.749	1.00	47.58	B	C
ATOM	5439	O	PHE	B	263	-54.897	36.481	5.045	1.00	47.76	B	O
ATOM	5440	N	ILE	B	264	-56.685	37.568	4.222	1.00	48.39	B	N
ATOM	5441	CB	ILE	B	264	-57.410	36.353	3.906	1.00	48.20	B	C
ATOM	5442	CB	ILE	B	264	-58.752	36.706	3.235	1.00	48.66	B	C
ATOM	5443	CG2	ILE	B	264	-59.516	35.461	2.913	1.00	48.00	B	C
ATOM	5444	CG1	ILE	B	264	-59.575	37.592	4.167	1.00	47.65	B	C
ATOM	5445	CD1	ILE	B	264	-60.846	38.119	3.534	1.00	48.36	B	C
ATOM	5446	C	ILE	B	264	-56.553	35.453	3.006	1.00	48.17	B	C
ATOM	5447	O	ILE	B	264	-56.258	34.332	3.393	1.00	48.16	B	O
ATOM	5448	N	ASP	B	265	-56.131	35.944	1.838	1.00	48.29	B	N
ATOM	5449	CB	ASP	B	265	-55.306	35.145	0.928	1.00	49.47	B	C
ATOM	5450	CB	ASP	B	265	-54.647	36.010	-0.143	1.00	50.71	B	C
ATOM	5451	CG	ASP	B	265	-55.635	36.558	-1.137	1.00	53.84	B	C
ATOM	5452	OD1	ASP	B	265	-56.771	36.039	-1.163	1.00	55.79	B	O
ATOM	5453	OD2	ASP	B	265	-55.281	37.493	-1.901	1.00	54.14	B	O
ATOM	5454	C	ASP	B	265	-54.208	34.402	1.660	1.00	51.09	B	C
ATOM	5455	O	ASP	B	265	-54.143	33.175	1.618	1.00	50.89	B	O
ATOM	5456	N	CYS	B	266	-53.327	35.159	2.307	1.00	52.63	B	N
ATOM	5457	CB	CYS	B	266	-52.218	34.590	3.065	1.00	53.74	B	C
ATOM	5458	CB	CYS	B	266	-51.534	35.662	3.901	1.00	54.13	B	C
ATOM	5459	SG	CYS	B	266	-50.783	36.999	2.977	1.00	55.93	B	S
ATOM	5460	C	CYS	B	266	-52.736	33.523	4.001	1.00	54.82	B	C
ATOM	5461	O	CYS	B	266	-52.246	32.399	4.005	1.00	56.42	B	O
ATOM	5462	N	PHE	B	267	-53.725	33.886	4.807	1.00	55.90	B	N
ATOM	5463	CB	PHE	B	267	-54.317	32.950	5.755	1.00	56.39	B	C
ATOM	5464	CB	PHE	B	267	-55.480	33.608	6.510	1.00	56.98	B	C
ATOM	5465	CG	PHE	B	267	-55.914	32.849	7.738	1.00	57.66	B	C
ATOM	5466	CD1	PHE	B	267	-55.423	33.191	8.993	1.00	58.37	B	C
ATOM	5467	CD2	PHE	B	267	-56.782	31.768	7.636	1.00	58.00	B	C
ATOM	5468	CE1	PHE	B	267	-55.791	32.467	10.127	1.00	58.38	B	C

Figure 1

ATOM	5469	CE2	PHE	B	267	-57.153	31.040	8.762	1.00	57.80	B	C
ATOM	5470	CZ	PHE	B	267	-56.656	31.391	10.009	1.00	58.26	B	C
ATOM	5471	C	PHE	B	267	-54.831	31.755	4.968	1.00	56.02	B	C
ATOM	5472	O	PHE	B	267	-54.535	30.609	5.294	1.00	55.27	B	O
ATOM	5473	N	LEU	B	268	-55.590	32.041	3.917	1.00	56.08	B	N
ATOM	5474	CB	LEU	B	268	-56.159	31.011	3.071	1.00	57.81	B	C
ATOM	5475	CB	LEU	B	268	-56.939	31.645	1.933	1.00	56.45	B	C
ATOM	5476	CG	LEU	B	268	-58.422	31.307	1.850	1.00	55.67	B	C
ATOM	5477	CD1	LEU	B	268	-59.060	31.180	3.225	1.00	55.08	B	C
ATOM	5478	CD2	LEU	B	268	-59.082	32.409	1.038	1.00	55.11	B	C
ATOM	5479	C	LEU	B	268	-55.136	30.059	2.490	1.00	60.44	B	C
ATOM	5480	O	LEU	B	268	-55.442	28.888	2.261	1.00	61.38	B	O
ATOM	5481	N	MET	B	269	-53.926	30.541	2.235	1.00	62.83	B	N
ATOM	5482	CB	MET	B	269	-52.933	29.648	1.666	1.00	65.68	B	C
ATOM	5483	CB	MET	B	269	-52.035	30.362	0.641	1.00	66.48	B	C
ATOM	5484	CG	MET	B	269	-51.112	31.436	1.186	1.00	67.97	B	C
ATOM	5485	SD	MET	B	269	-49.736	31.835	0.054	1.00	70.53	B	S
ATOM	5486	CE	MET	B	269	-50.592	31.982	-1.539	1.00	69.89	B	C
ATOM	5487	C	MET	B	269	-52.097	28.971	2.728	1.00	67.56	B	C
ATOM	5488	O	MET	B	269	-50.926	28.677	2.523	1.00	68.36	B	O
ATOM	5489	N	LYS	B	270	-52.705	28.731	3.881	1.00	70.26	B	N
ATOM	5490	CB	LYS	B	270	-52.013	28.026	4.943	1.00	72.64	B	C
ATOM	5491	CB	LYS	B	270	-52.405	28.582	6.304	1.00	71.49	B	C
ATOM	5492	CG	LYS	B	270	-51.368	29.531	6.855	1.00	69.76	B	C
ATOM	5493	CD	LYS	B	270	-50.192	28.759	7.402	1.00	68.33	B	C
ATOM	5494	CE	LYS	B	270	-49.264	29.672	8.162	1.00	67.64	B	C
ATOM	5495	NZ	LYS	B	270	-48.115	28.930	8.734	1.00	67.20	B	N
ATOM	5496	C	LYS	B	270	-52.414	26.562	4.796	1.00	75.73	B	C
ATOM	5497	O	LYS	B	270	-52.776	25.887	5.763	1.00	75.81	B	O
ATOM	5498	N	MET	B	271	-52.354	26.107	3.541	1.00	78.50	B	N
ATOM	5499	CB	MET	B	271	-52.667	24.737	3.146	1.00	80.13	B	C
ATOM	5500	CB	MET	B	271	-52.842	24.657	1.636	1.00	80.90	B	C
ATOM	5501	CG	MET	B	271	-53.812	25.665	1.079	1.00	82.59	B	C
ATOM	5502	SD	MET	B	271	-53.756	25.660	-0.719	1.00	85.97	B	S
ATOM	5503	CE	MET	B	271	-54.855	24.265	-1.095	1.00	84.51	B	C
ATOM	5504	C	MET	B	271	-51.486	23.873	3.567	1.00	81.24	B	C
ATOM	5505	O	MET	B	271	-51.600	22.653	3.699	1.00	81.28	B	O
ATOM	5506	N	GLU	B	272	-50.351	24.537	3.764	1.00	82.82	B	N
ATOM	5507	CB	GLU	B	272	-49.122	23.902	4.215	1.00	85.05	B	C
ATOM	5508	CB	GLU	B	272	-48.150	24.986	4.716	1.00	85.73	B	C
ATOM	5509	CG	GLU	B	272	-46.812	24.497	5.285	1.00	87.59	B	C
ATOM	5510	CD	GLU	B	272	-46.739	24.542	6.818	1.00	88.78	B	C
ATOM	5511	OE1	GLU	B	272	-45.608	24.522	7.356	1.00	89.56	B	O
ATOM	5512	OE2	GLU	B	272	-47.796	24.596	7.488	1.00	89.00	B	O
ATOM	5513	C	GLU	B	272	-49.508	22.951	5.350	1.00	86.62	B	C
ATOM	5514	O	GLU	B	272	-50.240	23.340	6.269	1.00	86.86	B	O
ATOM	5515	N	LYS	B	273	-49.028	21.709	5.275	1.00	88.29	B	N
ATOM	5516	CB	LYS	B	273	-49.332	20.680	6.277	1.00	89.32	B	C
ATOM	5517	CB	LYS	B	273	-48.887	21.121	7.685	1.00	89.02	B	C
ATOM	5518	CG	LYS	B	273	-47.390	21.273	7.885	1.00	88.45	B	C
ATOM	5519	CD	LYS	B	273	-47.074	21.964	9.209	1.00	88.05	B	C
ATOM	5520	CE	LYS	B	273	-45.581	22.284	9.332	1.00	87.87	B	C
ATOM	5521	NZ	LYS	B	273	-45.272	23.292	10.392	1.00	87.63	B	N
ATOM	5522	C	LYS	B	273	-50.827	20.350	6.318	1.00	89.89	B	C
ATOM	5523	O	LYS	B	273	-51.681	21.249	6.295	1.00	89.52	B	O
ATOM	5524	N	GLU	B	274	-51.131	19.054	6.376	1.00	90.48	B	N
ATOM	5525	CB	GLU	B	274	-52.513	18.581	6.461	1.00	90.84	B	C
ATOM	5526	CB	GLU	B	274	-52.993	18.697	7.922	1.00	90.64	B	C
ATOM	5527	CG	GLU	B	274	-54.268	17.929	8.288	1.00	89.99	B	C
ATOM	5528	CD	GLU	B	274	-54.825	18.328	9.658	1.00	89.49	B	C
ATOM	5529	OE1	GLU	B	274	-55.347	19.457	9.784	1.00	90.20	B	O
ATOM	5530	OE2	GLU	B	274	-54.738	17.521	10.608	1.00	88.35	B	O
ATOM	5531	C	GLU	B	274	-53.457	19.363	5.540	1.00	90.92	B	C
ATOM	5532	O	GLU	B	274	-53.555	19.092	4.345	1.00	90.64	B	O
ATOM	5533	N	LYS	B	275	-54.138	20.348	6.114	1.00	91.29	B	N
ATOM	5534	CB	LYS	B	275	-55.097	21.158	5.377	1.00	91.78	B	C
ATOM	5535	CB	LYS	B	275	-56.519	20.678	5.705	1.00	91.97	B	C
ATOM	5536	CG	LYS	B	275	-56.724	19.168	5.536	1.00	91.70	B	C
ATOM	5537	CD	LYS	B	275	-56.630	18.723	4.077	1.00	92.50	B	C
ATOM	5538	CE	LYS	B	275	-57.839	19.177	3.253	1.00	92.35	B	C
ATOM	5539	NZ	LYS	B	275	-59.116	18.534	3.676	1.00	91.66	B	N
ATOM	5540	C	LYS	B	275	-54.947	22.645	5.722	1.00	91.67	B	C
ATOM	5541	O	LYS	B	275	-54.974	23.480	4.788	1.00	91.56	B	O
ATOM	5542	OXT	LYS	B	275	-54.819	22.961	6.925	1.00	91.78	B	O
ATOM	5543	CB	SER	B	280	-53.435	22.615	12.417	1.00	74.77	B	C

Figure 1

ATOM	5544	OG	SER	B	280	-52.744	22.755	13.650	1.00	79.13	B	O
ATOM	5545	C	SER	B	280	-55.476	23.718	13.346	1.00	71.32	B	C
ATOM	5546	O	SER	B	280	-56.536	23.676	13.970	1.00	71.13	B	O
ATOM	5547	N	SER	B	280	-55.630	22.267	11.323	1.00	71.66	B	N
ATOM	5548	CB	SER	B	280	-54.943	22.474	12.632	1.00	72.45	B	C
ATOM	5549	N	GLU	B	281	-54.731	24.817	13.266	1.00	70.26	B	N
ATOM	5550	CB	GLU	B	281	-55.126	26.077	13.900	1.00	69.15	B	C
ATOM	5551	CB	GLU	B	281	-53.913	26.786	14.512	1.00	70.56	B	C
ATOM	5552	CG	GLU	B	281	-53.690	26.571	15.999	1.00	74.65	B	C
ATOM	5553	CD	GLU	B	281	-53.528	25.115	16.363	1.00	77.89	B	C
ATOM	5554	OE1	GLU	B	281	-54.561	24.428	16.495	1.00	80.62	B	O
ATOM	5555	OE2	GLU	B	281	-52.372	24.648	16.507	1.00	79.87	B	O
ATOM	5556	C	GLU	B	281	-55.786	27.030	12.904	1.00	67.62	B	C
ATOM	5557	O	GLU	B	281	-56.730	27.755	13.238	1.00	67.26	B	O
ATOM	5558	N	PHE	B	282	-55.297	27.035	11.672	1.00	65.32	B	N
ATOM	5559	CB	PHE	B	282	-55.850	27.937	10.680	1.00	63.49	B	C
ATOM	5560	CB	PHE	B	282	-54.788	28.284	9.636	1.00	61.74	B	C
ATOM	5561	CG	PHE	B	282	-53.532	28.821	10.225	1.00	59.40	B	C
ATOM	5562	CD1	PHE	B	282	-52.640	27.974	10.861	1.00	58.85	B	C
ATOM	5563	CD2	PHE	B	282	-53.265	30.181	10.199	1.00	58.91	B	C
ATOM	5564	CE1	PHE	B	282	-51.494	28.468	11.468	1.00	58.78	B	C
ATOM	5565	CE2	PHE	B	282	-52.120	30.691	10.802	1.00	59.04	B	C
ATOM	5566	CZ	PHE	B	282	-51.232	29.831	11.442	1.00	59.25	B	C
ATOM	5567	C	PHE	B	282	-57.099	27.417	9.996	1.00	62.85	B	C
ATOM	5568	O	PHE	B	282	-57.133	27.273	8.772	1.00	64.05	B	O
ATOM	5569	N	THR	B	283	-58.135	27.139	10.778	1.00	61.63	B	N
ATOM	5570	CB	THR	B	283	-59.376	26.656	10.195	1.00	59.39	B	C
ATOM	5571	CB	THR	B	283	-60.264	25.951	11.226	1.00	58.79	B	C
ATOM	5572	OG1	THR	B	283	-60.959	26.923	12.012	1.00	59.63	B	O
ATOM	5573	CG2	THR	B	283	-59.414	25.068	12.129	1.00	58.09	B	C
ATOM	5574	C	THR	B	283	-60.135	27.830	9.600	1.00	58.30	B	C
ATOM	5575	O	THR	B	283	-59.885	28.991	9.915	1.00	56.74	B	O
ATOM	5576	N	ILE	B	284	-61.065	27.519	8.720	1.00	58.90	B	N
ATOM	5577	CB	ILE	B	284	-61.825	28.556	8.071	1.00	59.17	B	C
ATOM	5578	CB	ILE	B	284	-62.809	27.930	7.068	1.00	58.68	B	C
ATOM	5579	CG2	ILE	B	284	-64.235	27.992	7.600	1.00	59.86	B	C
ATOM	5580	CG1	ILE	B	284	-62.705	28.660	5.735	1.00	58.70	B	C
ATOM	5581	CD1	ILE	B	284	-63.185	30.080	5.799	1.00	58.99	B	C
ATOM	5582	C	ILE	B	284	-62.566	29.456	9.059	1.00	60.12	B	C
ATOM	5583	O	ILE	B	284	-62.861	30.608	8.744	1.00	60.71	B	O
ATOM	5584	N	GLU	B	285	-62.865	28.952	10.254	1.00	60.72	B	N
ATOM	5585	CB	GLU	B	285	-63.590	29.768	11.223	1.00	60.44	B	C
ATOM	5586	CB	GLU	B	285	-64.615	28.936	11.991	1.00	60.85	B	C
ATOM	5587	CG	GLU	B	285	-64.149	28.442	13.334	1.00	63.04	B	C
ATOM	5588	CD	GLU	B	285	-65.315	28.188	14.293	1.00	65.29	B	C
ATOM	5589	OE1	GLU	B	285	-66.045	29.159	14.618	1.00	66.14	B	O
ATOM	5590	OE2	GLU	B	285	-65.500	27.021	14.722	1.00	66.32	B	O
ATOM	5591	C	GLU	B	285	-62.685	30.493	12.201	1.00	59.92	B	C
ATOM	5592	O	GLU	B	285	-63.082	31.493	12.796	1.00	61.00	B	O
ATOM	5593	N	SER	B	286	-61.468	29.997	12.375	1.00	58.72	B	N
ATOM	5594	CB	SER	B	286	-60.535	30.656	13.275	1.00	56.41	B	C
ATOM	5595	CB	SER	B	286	-59.338	29.755	13.584	1.00	55.84	B	C
ATOM	5596	OG	SER	B	286	-58.484	29.643	12.462	1.00	53.06	B	O
ATOM	5597	C	SER	B	286	-60.061	31.896	12.543	1.00	56.00	B	C
ATOM	5598	O	SER	B	286	-59.480	32.788	13.144	1.00	57.06	B	O
ATOM	5599	N	LEU	B	287	-60.313	31.943	11.236	1.00	55.99	B	N
ATOM	5600	CB	LEU	B	287	-59.927	33.086	10.411	1.00	55.96	B	C
ATOM	5601	CB	LEU	B	287	-59.965	32.729	8.925	1.00	56.55	B	C
ATOM	5602	CG	LEU	B	287	-60.137	33.880	7.915	1.00	57.20	B	C
ATOM	5603	CD1	LEU	B	287	-59.001	34.879	8.029	1.00	57.86	B	C
ATOM	5604	CD2	LEU	B	287	-60.200	33.310	6.505	1.00	57.36	B	C
ATOM	5605	C	LEU	B	287	-60.870	34.244	10.653	1.00	55.79	B	C
ATOM	5606	O	LEU	B	287	-60.443	35.344	10.999	1.00	56.11	B	O
ATOM	5607	N	GLU	B	288	-62.158	33.990	10.459	1.00	56.08	B	N
ATOM	5608	CB	GLU	B	288	-63.164	35.017	10.662	1.00	56.44	B	C
ATOM	5609	CB	GLU	B	288	-64.546	34.493	10.262	1.00	57.11	B	C
ATOM	5610	CG	GLU	B	288	-64.863	33.111	10.787	1.00	60.08	B	C
ATOM	5611	CD	GLU	B	288	-66.159	32.531	10.212	1.00	62.32	B	C
ATOM	5612	OE1	GLU	B	288	-66.677	31.545	10.799	1.00	63.81	B	O
ATOM	5613	OE2	GLU	B	288	-66.649	33.050	9.180	1.00	61.39	B	O
ATOM	5614	C	GLU	B	288	-63.136	35.491	12.117	1.00	55.74	B	C
ATOM	5615	O	GLU	B	288	-63.690	36.539	12.447	1.00	56.10	B	O
ATOM	5616	N	ASN	B	289	-62.484	34.730	12.991	1.00	53.98	B	N
ATOM	5617	CB	ASN	B	289	-62.377	35.164	14.374	1.00	52.59	B	C
ATOM	5618	CB	ASN	B	289	-62.085	34.000	15.304	1.00	53.71	B	C

Figure 1

ATOM	5619	CG	ASN	B	289	-63.325	33.293	15.722	1.00	54.53	B	C
ATOM	5620	OD1	ASN	B	289	-64.002	32.664	14.911	1.00	55.61	B	O
ATOM	5621	ND2	ASN	B	289	-63.660	33.412	17.007	1.00	56.28	B	N
ATOM	5622	C	ASN	B	289	-61.239	36.153	14.449	1.00	50.71	B	C
ATOM	5623	O	ASN	B	289	-61.379	37.253	14.974	1.00	50.97	B	O
ATOM	5624	N	THR	B	290	-60.103	35.752	13.906	1.00	47.74	B	N
ATOM	5625	CB	THR	B	290	-58.957	36.619	13.902	1.00	45.04	B	C
ATOM	5626	CB	THR	B	290	-57.769	35.942	13.217	1.00	44.96	B	C
ATOM	5627	OG1	THR	B	290	-57.344	34.823	14.002	1.00	43.08	B	O
ATOM	5628	CG2	THR	B	290	-56.621	36.925	13.063	1.00	46.32	B	C
ATOM	5629	C	THR	B	290	-59.330	37.893	13.160	1.00	42.77	B	C
ATOM	5630	O	THR	B	290	-58.969	38.985	13.561	1.00	42.63	B	O
ATOM	5631	N	ALB	B	291	-60.084	37.748	12.088	1.00	40.93	B	N
ATOM	5632	CB	ALB	B	291	-60.485	38.902	11.317	1.00	40.35	B	C
ATOM	5633	CB	ALB	B	291	-61.230	38.457	10.080	1.00	40.84	B	C
ATOM	5634	C	ALB	B	291	-61.370	39.812	12.139	1.00	40.17	B	C
ATOM	5635	O	ALB	B	291	-61.200	41.026	12.145	1.00	39.39	B	O
ATOM	5636	N	VAL	B	292	-62.329	39.219	12.831	1.00	39.76	B	N
ATOM	5637	CB	VAL	B	292	-63.243	40.009	13.617	1.00	39.50	B	C
ATOM	5638	CB	VAL	B	292	-64.438	39.134	14.032	1.00	39.68	B	C
ATOM	5639	CG1	VAL	B	292	-64.037	38.245	15.190	1.00	40.47	B	C
ATOM	5640	CG2	VAL	B	292	-65.657	40.003	14.325	1.00	37.69	B	C
ATOM	5641	C	VAL	B	292	-62.522	40.648	14.810	1.00	39.15	B	C
ATOM	5642	O	VAL	B	292	-62.945	41.683	15.310	1.00	39.62	B	O
ATOM	5643	N	ASP	B	293	-61.426	40.048	15.269	1.00	39.93	B	N
ATOM	5644	CB	ASP	B	293	-60.678	40.652	16.372	1.00	39.11	B	C
ATOM	5645	CB	ASP	B	293	-59.777	39.633	17.056	1.00	38.92	B	C
ATOM	5646	CG	ASP	B	293	-60.546	38.740	18.010	1.00	43.01	B	C
ATOM	5647	OD1	ASP	B	293	-59.902	38.008	18.808	1.00	43.72	B	O
ATOM	5648	OD2	ASP	B	293	-61.803	38.769	17.962	1.00	45.44	B	O
ATOM	5649	C	ASP	B	293	-59.862	41.827	15.852	1.00	38.91	B	C
ATOM	5650	O	ASP	B	293	-59.811	42.872	16.494	1.00	40.44	B	O
ATOM	5651	N	LEU	B	294	-59.236	41.681	14.687	1.00	36.76	B	N
ATOM	5652	CB	LEU	B	294	-58.473	42.787	14.128	1.00	33.65	B	C
ATOM	5653	CB	LEU	B	294	-57.833	42.405	12.808	1.00	31.23	B	C
ATOM	5654	CG	LEU	B	294	-56.818	41.287	13.032	1.00	32.79	B	C
ATOM	5655	CD1	LEU	B	294	-56.300	40.756	11.707	1.00	33.40	B	C
ATOM	5656	CD2	LEU	B	294	-55.698	41.802	13.896	1.00	32.34	B	C
ATOM	5657	C	LEU	B	294	-59.357	43.998	13.916	1.00	32.99	B	C
ATOM	5658	O	LEU	B	294	-58.901	45.122	14.073	1.00	35.78	B	O
ATOM	5659	N	PHE	B	295	-60.619	43.786	13.557	1.00	31.27	B	N
ATOM	5660	CB	PHE	B	295	-61.537	44.913	13.350	1.00	28.88	B	C
ATOM	5661	CB	PHE	B	295	-62.849	44.474	12.714	1.00	29.68	B	C
ATOM	5662	CG	PHE	B	295	-62.837	44.522	11.236	1.00	29.86	B	C
ATOM	5663	CD1	PHE	B	295	-62.926	45.729	10.565	1.00	30.61	B	C
ATOM	5664	CD2	PHE	B	295	-62.666	43.357	10.508	1.00	30.77	B	C
ATOM	5665	CE1	PHE	B	295	-62.842	45.776	9.175	1.00	31.84	B	C
ATOM	5666	CE2	PHE	B	295	-62.578	43.387	9.130	1.00	32.13	B	C
ATOM	5667	CZ	PHE	B	295	-62.666	44.600	8.458	1.00	32.49	B	C
ATOM	5668	C	PHE	B	295	-61.882	45.547	14.663	1.00	27.53	B	C
ATOM	5669	O	PHE	B	295	-62.148	46.737	14.735	1.00	27.35	B	O
ATOM	5670	N	GLY	B	296	-61.912	44.731	15.702	1.00	25.49	B	N
ATOM	5671	CB	GLY	B	296	-62.253	45.243	17.002	1.00	24.78	B	C
ATOM	5672	C	GLY	B	296	-61.075	45.904	17.656	1.00	25.52	B	C
ATOM	5673	O	GLY	B	296	-61.196	46.998	18.195	1.00	27.98	B	O
ATOM	5674	N	ALB	B	297	-59.930	45.240	17.616	1.00	25.30	B	N
ATOM	5675	CB	ALB	B	297	-58.739	45.789	18.228	1.00	26.38	B	C
ATOM	5676	CB	ALB	B	297	-57.719	44.693	18.438	1.00	24.88	B	C
ATOM	5677	C	ALB	B	297	-58.133	46.912	17.396	1.00	28.34	B	C
ATOM	5678	O	ALB	B	297	-57.442	47.784	17.924	1.00	31.07	B	O
ATOM	5679	N	GLY	B	298	-58.392	46.922	16.100	1.00	27.67	B	N
ATOM	5680	CB	GLY	B	298	-57.773	47.960	15.319	1.00	29.26	B	C
ATOM	5681	C	GLY	B	298	-58.633	49.127	14.924	1.00	31.14	B	C
ATOM	5682	O	GLY	B	298	-58.262	49.900	14.042	1.00	34.01	B	O
ATOM	5683	N	THR	B	299	-59.745	49.342	15.594	1.00	29.49	B	N
ATOM	5684	CB	THR	B	299	-60.577	50.399	15.103	1.00	26.79	B	C
ATOM	5685	CB	THR	B	299	-61.753	49.712	14.411	1.00	26.41	B	C
ATOM	5686	OG1	THR	B	299	-62.265	50.529	13.358	1.00	27.57	B	O
ATOM	5687	CG2	THR	B	299	-62.821	49.392	15.408	1.00	27.56	B	C
ATOM	5688	C	THR	B	299	-60.995	51.429	16.146	1.00	26.40	B	C
ATOM	5689	O	THR	B	299	-60.939	52.637	15.909	1.00	25.92	B	O
ATOM	5690	N	GLU	B	300	-61.374	50.961	17.321	1.00	26.01	B	N
ATOM	5691	CB	GLU	B	300	-61.792	51.850	18.391	1.00	26.93	B	C
ATOM	5692	CB	GLU	B	300	-62.412	51.005	19.500	1.00	31.79	B	C
ATOM	5693	CG	GLU	B	300	-62.557	51.727	20.802	1.00	37.36	B	C

Figure 1

ATOM	5694	CD	GLU	B	300	-63.445	52.938	20.668	1.00	42.07	B	C
ATOM	5695	OE1	GLU	B	300	-63.613	53.661	21.679	1.00	47.59	B	O
ATOM	5696	OE2	GLU	B	300	-63.981	53.179	19.558	1.00	42.63	B	O
ATOM	5697	C	GLU	B	300	-60.665	52.730	18.947	1.00	25.84	B	C
ATOM	5698	O	GLU	B	300	-60.683	53.938	18.763	1.00	24.17	B	O
ATOM	5699	N	THR	B	301	-59.690	52.110	19.616	1.00	27.08	B	N
ATOM	5700	CB	THR	B	301	-58.536	52.804	20.229	1.00	27.58	B	C
ATOM	5701	CB	THR	B	301	-57.515	51.814	20.760	1.00	29.49	B	C
ATOM	5702	OG1	THR	B	301	-57.306	50.788	19.778	1.00	34.46	B	O
ATOM	5703	CG2	THR	B	301	-57.994	51.205	22.064	1.00	32.05	B	C
ATOM	5704	C	THR	B	301	-57.776	53.756	19.335	1.00	25.76	B	C
ATOM	5705	O	THR	B	301	-57.255	54.775	19.789	1.00	25.40	B	O
ATOM	5706	N	THR	B	302	-57.683	53.416	18.063	1.00	24.51	B	N
ATOM	5707	CB	THR	B	302	-56.984	54.297	17.171	1.00	25.41	B	C
ATOM	5708	CB	THR	B	302	-56.772	53.649	15.826	1.00	26.05	B	C
ATOM	5709	OG1	THR	B	302	-55.789	52.615	15.937	1.00	31.07	B	O
ATOM	5710	CG2	THR	B	302	-56.306	54.675	14.831	1.00	26.58	B	C
ATOM	5711	C	THR	B	302	-57.838	55.543	16.998	1.00	25.98	B	C
ATOM	5712	O	THR	B	302	-57.442	56.653	17.355	1.00	25.33	B	O
ATOM	5713	N	SER	B	303	-59.035	55.341	16.466	1.00	26.68	B	N
ATOM	5714	CB	SER	B	303	-59.966	56.430	16.225	1.00	27.19	B	C
ATOM	5715	CB	SER	B	303	-61.367	55.897	15.952	1.00	29.13	B	C
ATOM	5716	OG	SER	B	303	-61.465	55.225	14.715	1.00	34.34	B	O
ATOM	5717	C	SER	B	303	-60.086	57.360	17.388	1.00	25.94	B	C
ATOM	5718	O	SER	B	303	-60.050	58.573	17.235	1.00	25.33	B	O
ATOM	5719	N	THR	B	304	-60.282	56.787	18.564	1.00	26.25	B	N
ATOM	5720	CB	THR	B	304	-60.463	57.617	19.736	1.00	26.25	B	C
ATOM	5721	CB	THR	B	304	-60.869	56.771	20.943	1.00	25.12	B	C
ATOM	5722	OG1	THR	B	304	-60.909	57.607	22.098	1.00	25.84	B	O
ATOM	5723	CG2	THR	B	304	-59.910	55.607	21.139	1.00	28.20	B	C
ATOM	5724	C	THR	B	304	-59.217	58.432	20.013	1.00	26.31	B	C
ATOM	5725	O	THR	B	304	-59.311	59.566	20.478	1.00	25.89	B	O
ATOM	5726	N	THR	B	305	-58.056	57.852	19.695	1.00	25.66	B	N
ATOM	5727	CB	THR	B	305	-56.778	58.532	19.875	1.00	22.79	B	C
ATOM	5728	CB	THR	B	305	-55.600	57.593	19.632	1.00	23.12	B	C
ATOM	5729	OG1	THR	B	305	-55.610	56.565	20.617	1.00	23.94	B	O
ATOM	5730	CG2	THR	B	305	-54.280	58.346	19.727	1.00	22.25	B	C
ATOM	5731	C	THR	B	305	-56.675	59.716	18.910	1.00	22.27	B	C
ATOM	5732	O	THR	B	305	-56.268	60.806	19.312	1.00	21.11	B	O
ATOM	5733	N	LEU	B	306	-57.030	59.518	17.643	1.00	21.59	B	N
ATOM	5734	CB	LEU	B	306	-56.984	60.641	16.718	1.00	23.20	B	C
ATOM	5735	CB	LEU	B	306	-57.496	60.267	15.342	1.00	25.43	B	C
ATOM	5736	CG	LEU	B	306	-56.758	59.078	14.789	1.00	29.99	B	C
ATOM	5737	CD1	LEU	B	306	-57.609	58.389	13.728	1.00	30.54	B	C
ATOM	5738	CD2	LEU	B	306	-55.423	59.571	14.229	1.00	31.99	B	C
ATOM	5739	C	LEU	B	306	-57.906	61.700	17.280	1.00	22.80	B	C
ATOM	5740	O	LEU	B	306	-57.531	62.856	17.435	1.00	22.83	B	O
ATOM	5741	N	ARG	B	307	-59.123	61.288	17.592	1.00	22.93	B	N
ATOM	5742	CB	ARG	B	307	-60.121	62.189	18.128	1.00	22.85	B	C
ATOM	5743	CB	ARG	B	307	-61.301	61.398	18.640	1.00	24.53	B	C
ATOM	5744	CG	ARG	B	307	-62.615	61.869	18.079	1.00	27.44	B	C
ATOM	5745	CD	ARG	B	307	-63.714	61.266	18.894	1.00	28.29	B	C
ATOM	5746	NE	ARG	B	307	-63.640	59.814	18.874	1.00	32.35	B	N
ATOM	5747	CZ	ARG	B	307	-64.006	59.048	19.894	1.00	34.22	B	C
ATOM	5748	NH1	ARG	B	307	-64.457	59.627	20.998	1.00	35.76	B	N
ATOM	5749	NH2	ARG	B	307	-63.933	57.714	19.808	1.00	34.04	B	N
ATOM	5750	C	ARG	B	307	-59.555	63.009	19.257	1.00	21.78	B	C
ATOM	5751	O	ARG	B	307	-59.656	64.234	19.263	1.00	21.63	B	O
ATOM	5752	N	TYR	B	308	-58.959	62.309	20.215	1.00	20.38	B	N
ATOM	5753	CB	TYR	B	308	-58.352	62.938	21.369	1.00	19.20	B	C
ATOM	5754	CB	TYR	B	308	-57.831	61.877	22.330	1.00	16.80	B	C
ATOM	5755	CG	TYR	B	308	-58.180	62.202	23.746	1.00	17.26	B	C
ATOM	5756	CD1	TYR	B	308	-58.636	61.210	24.619	1.00	17.03	B	C
ATOM	5757	CE1	TYR	B	308	-59.062	61.528	25.906	1.00	19.31	B	C
ATOM	5758	CD2	TYR	B	308	-58.142	63.526	24.195	1.00	18.45	B	C
ATOM	5759	CE2	TYR	B	308	-58.562	63.865	25.470	1.00	20.48	B	C
ATOM	5760	CZ	TYR	B	308	-59.024	62.865	26.320	1.00	22.48	B	C
ATOM	5761	OH	TYR	B	308	-59.460	63.232	27.570	1.00	26.26	B	O
ATOM	5762	C	TYR	B	308	-57.210	63.842	20.941	1.00	19.96	B	C
ATOM	5763	O	TYR	B	308	-56.975	64.889	21.549	1.00	20.87	B	O
ATOM	5764	N	ALB	B	309	-56.492	63.435	19.899	1.00	18.00	B	N
ATOM	5765	CB	ALB	B	309	-55.396	64.247	19.429	1.00	17.75	B	C
ATOM	5766	CB	ALB	B	309	-54.657	63.557	18.324	1.00	16.62	B	C
ATOM	5767	C	ALB	B	309	-55.903	65.600	18.952	1.00	19.19	B	C
ATOM	5768	O	ALB	B	309	-55.442	66.636	19.434	1.00	18.53	B	O

Figure 1

ATOM	5769	N	LEU	B	310	-56.857	65.609	18.023	1.00	19.81	B	N
ATOM	5770	CB	LEU	B	310	-57.374	66.877	17.517	1.00	20.86	B	C
ATOM	5771	CB	LEU	B	310	-58.470	66.645	16.484	1.00	21.51	B	C
ATOM	5772	CG	LEU	B	310	-58.007	65.929	15.210	1.00	25.25	B	C
ATOM	5773	CD1	LEU	B	310	-59.242	65.519	14.443	1.00	25.53	B	C
ATOM	5774	CD2	LEU	B	310	-57.104	66.811	14.352	1.00	25.87	B	C
ATOM	5775	C	LEU	B	310	-57.897	67.773	18.634	1.00	22.30	B	C
ATOM	5776	O	LEU	B	310	-57.632	68.976	18.648	1.00	23.37	B	O
ATOM	5777	N	LEU	B	311	-58.629	67.204	19.585	1.00	21.44	B	N
ATOM	5778	CB	LEU	B	311	-59.144	68.024	20.662	1.00	20.88	B	C
ATOM	5779	CB	LEU	B	311	-59.984	67.186	21.619	1.00	19.01	B	C
ATOM	5780	CG	LEU	B	311	-60.390	67.839	22.948	1.00	18.49	B	C
ATOM	5781	CD1	LEU	B	311	-61.357	68.983	22.706	1.00	18.00	B	C
ATOM	5782	CD2	LEU	B	311	-61.016	66.806	23.841	1.00	16.88	B	C
ATOM	5783	C	LEU	B	311	-57.998	68.686	21.419	1.00	22.48	B	C
ATOM	5784	O	LEU	B	311	-58.122	69.823	21.858	1.00	22.48	B	O
ATOM	5785	N	LEU	B	312	-56.879	67.978	21.561	1.00	24.25	B	N
ATOM	5786	CB	LEU	B	312	-55.709	68.496	22.285	1.00	24.91	B	C
ATOM	5787	CB	LEU	B	312	-54.792	67.356	22.690	1.00	21.92	B	C
ATOM	5788	CG	LEU	B	312	-55.184	66.632	23.964	1.00	19.90	B	C
ATOM	5789	CD1	LEU	B	312	-54.417	65.352	24.066	1.00	18.64	B	C
ATOM	5790	CD2	LEU	B	312	-54.936	67.532	25.155	1.00	19.07	B	C
ATOM	5791	C	LEU	B	312	-54.892	69.502	21.511	1.00	27.14	B	C
ATOM	5792	O	LEU	B	312	-54.220	70.343	22.104	1.00	28.40	B	O
ATOM	5793	N	LEU	B	313	-54.913	69.378	20.190	1.00	28.19	B	N
ATOM	5794	CB	LEU	B	313	-54.188	70.296	19.346	1.00	30.54	B	C
ATOM	5795	CB	LEU	B	313	-53.970	69.690	17.958	1.00	30.59	B	C
ATOM	5796	CG	LEU	B	313	-52.800	68.737	17.654	1.00	28.96	B	C
ATOM	5797	CD1	LEU	B	313	-53.097	67.912	16.398	1.00	27.46	B	C
ATOM	5798	CD2	LEU	B	313	-51.550	69.542	17.450	1.00	27.44	B	C
ATOM	5799	C	LEU	B	313	-55.005	71.586	19.246	1.00	33.39	B	C
ATOM	5800	O	LEU	B	313	-54.568	72.547	18.625	1.00	35.57	B	O
ATOM	5801	N	LEU	B	314	-56.203	71.604	19.835	1.00	35.30	B	N
ATOM	5802	CB	LEU	B	314	-57.027	72.815	19.836	1.00	36.01	B	C
ATOM	5803	CB	LEU	B	314	-58.524	72.502	19.836	1.00	35.55	B	C
ATOM	5804	CG	LEU	B	314	-59.227	71.941	18.597	1.00	36.63	B	C
ATOM	5805	CD1	LEU	B	314	-60.609	71.450	18.978	1.00	34.59	B	C
ATOM	5806	CD2	LEU	B	314	-59.325	73.004	17.511	1.00	36.53	B	C
ATOM	5807	C	LEU	B	314	-56.676	73.490	21.144	1.00	36.18	B	C
ATOM	5808	O	LEU	B	314	-56.292	74.648	21.190	1.00	37.31	B	O
ATOM	5809	N	LYS	B	315	-56.788	72.746	22.222	1.00	37.02	B	N
ATOM	5810	CB	LYS	B	315	-56.476	73.302	23.509	1.00	39.35	B	C
ATOM	5811	CB	LYS	B	315	-56.507	72.188	24.542	1.00	38.65	B	C
ATOM	5812	CG	LYS	B	315	-56.407	72.672	25.952	1.00	38.95	B	C
ATOM	5813	CD	LYS	B	315	-57.656	73.410	26.356	1.00	39.68	B	C
ATOM	5814	CE	LYS	B	315	-57.704	73.586	27.856	1.00	40.12	B	C
ATOM	5815	NZ	LYS	B	315	-58.822	74.473	28.221	1.00	39.66	B	N
ATOM	5816	C	LYS	B	315	-55.103	74.013	23.513	1.00	40.89	B	C
ATOM	5817	O	LYS	B	315	-54.920	75.009	24.222	1.00	42.69	B	O
ATOM	5818	N	HIS	B	316	-54.151	73.514	22.713	1.00	40.89	B	N
ATOM	5819	CB	HIS	B	316	-52.787	74.076	22.640	1.00	39.53	B	C
ATOM	5820	CB	HIS	B	316	-51.772	73.082	23.145	1.00	38.52	B	C
ATOM	5821	CG	HIS	B	316	-52.250	72.318	24.319	1.00	36.60	B	C
ATOM	5822	CD2	HIS	B	316	-52.526	71.007	24.475	1.00	37.63	B	C
ATOM	5823	ND1	HIS	B	316	-52.563	72.927	25.508	1.00	36.13	B	N
ATOM	5824	CE1	HIS	B	316	-53.012	72.022	26.355	1.00	36.12	B	C
ATOM	5825	NE2	HIS	B	316	-53.000	70.849	25.753	1.00	37.58	B	N
ATOM	5826	C	HIS	B	316	-52.368	74.443	21.249	1.00	39.50	B	C
ATOM	5827	O	HIS	B	316	-51.547	73.757	20.633	1.00	38.71	B	O
ATOM	5828	N	PRO	B	317	-52.921	75.536	20.733	1.00	39.15	B	N
ATOM	5829	CD	PRO	B	317	-53.832	76.504	21.366	1.00	38.02	B	C
ATOM	5830	CB	PRO	B	317	-52.555	75.950	19.386	1.00	38.68	B	C
ATOM	5831	CB	PRO	B	317	-53.399	77.200	19.180	1.00	38.15	B	C
ATOM	5832	CG	PRO	B	317	-53.565	77.730	20.575	1.00	38.21	B	C
ATOM	5833	C	PRO	B	317	-51.052	76.195	19.242	1.00	38.78	B	C
ATOM	5834	O	PRO	B	317	-50.498	75.976	18.179	1.00	38.80	B	O
ATOM	5835	N	GLU	B	318	-50.393	76.623	20.313	1.00	40.00	B	N
ATOM	5836	CB	GLU	B	318	-48.957	76.882	20.259	1.00	42.04	B	C
ATOM	5837	CB	GLU	B	318	-48.450	77.336	21.630	1.00	44.80	B	C
ATOM	5838	CG	GLU	B	318	-48.588	76.309	22.743	1.00	52.02	B	C
ATOM	5839	CD	GLU	B	318	-50.032	76.128	23.256	1.00	54.86	B	C
ATOM	5840	OE1	GLU	B	318	-50.979	76.733	22.692	1.00	54.45	B	O
ATOM	5841	OE2	GLU	B	318	-50.206	75.357	24.235	1.00	57.92	B	O
ATOM	5842	C	GLU	B	318	-48.175	75.656	19.784	1.00	41.53	B	C
ATOM	5843	O	GLU	B	318	-47.222	75.756	19.001	1.00	41.67	B	O

Figure 1

ATOM	5844	N	VAL	B	319	-48.605	74.497	20.260	1.00	41.17	B	N
ATOM	5845	CB	VAL	B	319	-47.997	73.217	19.923	1.00	39.40	B	C
ATOM	5846	CB	VAL	B	319	-48.524	72.148	20.878	1.00	38.16	B	C
ATOM	5847	CG1	VAL	B	319	-48.171	70.760	20.379	1.00	38.47	B	C
ATOM	5848	CG2	VAL	B	319	-47.938	72.389	22.246	1.00	37.76	B	C
ATOM	5849	C	VAL	B	319	-48.316	72.827	18.483	1.00	38.81	B	C
ATOM	5850	O	VAL	B	319	-47.474	72.286	17.771	1.00	38.18	B	O
ATOM	5851	N	THR	B	320	-49.547	73.112	18.074	1.00	37.70	B	N
ATOM	5852	CB	THR	B	320	-50.015	72.815	16.735	1.00	37.04	B	C
ATOM	5853	CB	THR	B	320	-51.492	73.241	16.564	1.00	37.86	B	C
ATOM	5854	OG1	THR	B	320	-52.021	72.599	17.559	1.00	39.12	B	O
ATOM	5855	CG2	THR	B	320	-52.016	72.847	15.187	1.00	39.76	B	C
ATOM	5856	C	THR	B	320	-49.169	73.571	15.720	1.00	35.65	B	C
ATOM	5857	O	THR	B	320	-48.787	73.034	14.681	1.00	35.14	B	O
ATOM	5858	N	ALB	B	321	-48.886	74.826	16.040	1.00	35.02	B	N
ATOM	5859	CB	ALB	B	321	-48.096	75.681	15.175	1.00	34.76	B	C
ATOM	5860	CB	ALB	B	321	-47.933	77.046	15.797	1.00	34.30	B	C
ATOM	5861	C	ALB	B	321	-46.740	75.056	14.940	1.00	34.73	B	C
ATOM	5862	O	ALB	B	321	-46.335	74.842	13.796	1.00	34.36	B	O
ATOM	5863	N	LYS	B	322	-46.023	74.777	16.020	1.00	34.21	B	N
ATOM	5864	CB	LYS	B	322	-44.731	74.161	15.859	1.00	34.92	B	C
ATOM	5865	CB	LYS	B	322	-44.144	73.756	17.206	1.00	36.74	B	C
ATOM	5866	CG	LYS	B	322	-43.870	74.936	18.128	1.00	39.78	B	C
ATOM	5867	CD	LYS	B	322	-42.996	74.501	19.286	1.00	42.82	B	C
ATOM	5868	CE	LYS	B	322	-42.858	75.581	20.342	1.00	44.46	B	C
ATOM	5869	NZ	LYS	B	322	-44.161	75.889	21.021	1.00	47.27	B	N
ATOM	5870	C	LYS	B	322	-44.920	72.945	14.969	1.00	34.61	B	C
ATOM	5871	O	LYS	B	322	-44.238	72.805	13.967	1.00	35.70	B	O
ATOM	5872	N	VAL	B	323	-45.870	72.082	15.300	1.00	34.05	B	N
ATOM	5873	CB	VAL	B	323	-46.078	70.906	14.477	1.00	33.87	B	C
ATOM	5874	CB	VAL	B	323	-47.286	70.083	14.914	1.00	32.65	B	C
ATOM	5875	CG1	VAL	B	323	-47.532	68.946	13.913	1.00	29.56	B	C
ATOM	5876	CG2	VAL	B	323	-47.038	69.510	16.277	1.00	31.83	B	C
ATOM	5877	C	VAL	B	323	-46.288	71.289	13.034	1.00	35.24	B	C
ATOM	5878	O	VAL	B	323	-45.841	70.593	12.130	1.00	35.97	B	O
ATOM	5879	N	GLN	B	324	-46.973	72.392	12.802	1.00	36.55	B	N
ATOM	5880	CB	GLN	B	324	-47.208	72.789	11.434	1.00	38.40	B	C
ATOM	5881	CB	GLN	B	324	-48.301	73.856	11.364	1.00	38.31	B	C
ATOM	5882	CG	GLN	B	324	-49.511	73.364	10.589	1.00	38.75	B	C
ATOM	5883	CD	GLN	B	324	-50.811	73.848	11.148	1.00	40.50	B	C
ATOM	5884	OE1	GLN	B	324	-51.875	73.515	10.631	1.00	41.82	B	O
ATOM	5885	NE2	GLN	B	324	-50.746	74.632	12.219	1.00	41.49	B	N
ATOM	5886	C	GLN	B	324	-45.940	73.287	10.782	1.00	39.59	B	C
ATOM	5887	O	GLN	B	324	-45.682	72.981	9.617	1.00	39.35	B	O
ATOM	5888	N	GLU	B	325	-45.142	74.043	11.529	1.00	41.11	B	N
ATOM	5889	CB	GLU	B	325	-43.910	74.571	10.973	1.00	43.16	B	C
ATOM	5890	CB	GLU	B	325	-43.266	75.552	11.937	1.00	46.00	B	C
ATOM	5891	CG	GLU	B	325	-43.343	76.981	11.449	1.00	53.84	B	C
ATOM	5892	CD	GLU	B	325	-42.846	77.143	10.005	1.00	58.16	B	C
ATOM	5893	OE1	GLU	B	325	-41.749	76.614	9.679	1.00	59.55	B	O
ATOM	5894	OE2	GLU	B	325	-43.553	77.807	9.203	1.00	60.82	B	O
ATOM	5895	C	GLU	B	325	-42.925	73.462	10.632	1.00	42.89	B	C
ATOM	5896	O	GLU	B	325	-42.072	73.626	9.769	1.00	43.84	B	O
ATOM	5897	N	GLU	B	326	-43.058	72.330	11.313	1.00	42.19	B	N
ATOM	5898	CB	GLU	B	326	-42.183	71.194	11.093	1.00	41.58	B	C
ATOM	5899	CB	GLU	B	326	-42.226	70.255	12.299	1.00	41.22	B	C
ATOM	5900	CG	GLU	B	326	-41.345	69.030	12.183	1.00	43.37	B	C
ATOM	5901	CD	GLU	B	326	-40.865	68.514	13.525	1.00	45.64	B	C
ATOM	5902	OE1	GLU	B	326	-39.708	68.807	13.902	1.00	47.83	B	O
ATOM	5903	OE2	GLU	B	326	-41.637	67.817	14.211	1.00	47.03	B	O
ATOM	5904	C	GLU	B	326	-42.601	70.450	9.838	1.00	41.88	B	C
ATOM	5905	O	GLU	B	326	-41.767	69.927	9.105	1.00	43.06	B	O
ATOM	5906	N	ILE	B	327	-43.896	70.392	9.574	1.00	41.99	B	N
ATOM	5907	CB	ILE	B	327	-44.360	69.689	8.386	1.00	42.26	B	C
ATOM	5908	CB	ILE	B	327	-45.907	69.549	8.380	1.00	39.88	B	C
ATOM	5909	CG2	ILE	B	327	-46.400	69.139	7.023	1.00	37.59	B	C
ATOM	5910	CG1	ILE	B	327	-46.327	68.470	9.368	1.00	37.31	B	C
ATOM	5911	CD1	ILE	B	327	-47.705	68.661	9.896	1.00	37.61	B	C
ATOM	5912	C	ILE	B	327	-43.902	70.442	7.155	1.00	43.90	B	C
ATOM	5913	O	ILE	B	327	-43.248	69.871	6.284	1.00	43.21	B	O
ATOM	5914	N	GLU	B	328	-44.240	71.730	7.110	1.00	46.50	B	N
ATOM	5915	CB	GLU	B	328	-43.907	72.606	5.991	1.00	48.59	B	C
ATOM	5916	CB	GLU	B	328	-44.384	74.020	6.282	1.00	50.86	B	C
ATOM	5917	CG	GLU	B	328	-44.529	74.863	5.036	1.00	56.96	B	C
ATOM	5918	CD	GLU	B	328	-45.281	76.170	5.301	1.00	61.79	B	C

Figure 1

ATOM	5919	OE1	GLU	B	328	-46.444	76.108	5.799	1.00	63.12	B	O
ATOM	5920	OE2	GLU	B	328	-44.705	77.258	5.014	1.00	64.05	B	O
ATOM	5921	C	GLU	B	328	-42.428	72.637	5.651	1.00	48.51	B	C
ATOM	5922	O	GLU	B	328	-42.043	72.952	4.525	1.00	49.71	B	O
ATOM	5923	N	ARG	B	329	-41.595	72.311	6.627	1.00	47.66	B	N
ATOM	5924	CB	ARG	B	329	-40.165	72.306	6.410	1.00	45.48	B	C
ATOM	5925	CB	ARG	B	329	-39.453	72.665	7.707	1.00	43.73	B	C
ATOM	5926	CG	ARG	B	329	-37.948	72.435	7.711	1.00	42.73	B	C
ATOM	5927	CD	ARG	B	329	-37.306	73.391	8.697	1.00	40.93	B	C
ATOM	5928	NE	ARG	B	329	-37.964	73.245	9.978	1.00	39.71	B	N
ATOM	5929	CZ	ARG	B	329	-37.888	72.140	10.701	1.00	40.12	B	C
ATOM	5930	NH1	ARG	B	329	-37.164	71.120	10.252	1.00	39.92	B	N
ATOM	5931	NH2	ARG	B	329	-38.572	72.032	11.835	1.00	39.50	B	N
ATOM	5932	C	ARG	B	329	-39.668	70.978	5.857	1.00	45.24	B	C
ATOM	5933	O	ARG	B	329	-39.020	70.963	4.824	1.00	46.43	B	O
ATOM	5934	N	VAL	B	330	-39.970	69.861	6.510	1.00	44.73	B	N
ATOM	5935	CB	VAL	B	330	-39.496	68.583	5.994	1.00	44.36	B	C
ATOM	5936	CB	VAL	B	330	-39.216	67.574	7.126	1.00	44.16	B	C
ATOM	5937	CG1	VAL	B	330	-39.031	68.313	8.431	1.00	44.51	B	C
ATOM	5938	CG2	VAL	B	330	-40.321	66.548	7.218	1.00	45.37	B	C
ATOM	5939	C	VAL	B	330	-40.424	67.929	4.982	1.00	44.16	B	C
ATOM	5940	O	VAL	B	330	-40.044	66.967	4.327	1.00	44.73	B	O
ATOM	5941	N	ILE	B	331	-41.647	68.428	4.875	1.00	44.44	B	N
ATOM	5942	CB	ILE	B	331	-42.607	67.896	3.918	1.00	46.17	B	C
ATOM	5943	CB	ILE	B	331	-43.767	67.123	4.604	1.00	44.98	B	C
ATOM	5944	CG2	ILE	B	331	-44.770	66.671	3.540	1.00	43.85	B	C
ATOM	5945	CG1	ILE	B	331	-43.224	65.941	5.425	1.00	45.15	B	C
ATOM	5946	CD1	ILE	B	331	-44.179	65.371	6.484	1.00	41.00	B	C
ATOM	5947	C	ILE	B	331	-43.198	69.127	3.260	1.00	49.25	B	C
ATOM	5948	O	ILE	B	331	-43.696	70.019	3.943	1.00	51.31	B	O
ATOM	5949	N	GLY	B	332	-43.161	69.203	1.941	1.00	51.20	B	N
ATOM	5950	CB	GLY	B	332	-43.721	70.389	1.314	1.00	55.10	B	C
ATOM	5951	C	GLY	B	332	-45.235	70.468	1.371	1.00	56.81	B	C
ATOM	5952	O	GLY	B	332	-45.890	69.633	1.987	1.00	56.88	B	O
ATOM	5953	N	ARG	B	333	-45.789	71.491	0.735	1.00	59.15	B	N
ATOM	5954	CB	ARG	B	333	-47.227	71.651	0.680	1.00	61.57	B	C
ATOM	5955	CB	ARG	B	333	-47.600	73.085	0.285	1.00	64.06	B	C
ATOM	5956	CG	ARG	B	333	-46.838	74.152	1.048	1.00	69.84	B	C
ATOM	5957	CD	ARG	B	333	-46.877	75.514	0.342	1.00	74.48	B	C
ATOM	5958	NE	ARG	B	333	-46.620	75.400	-1.095	1.00	78.36	B	N
ATOM	5959	CZ	ARG	B	333	-46.329	76.422	-1.896	1.00	79.81	B	C
ATOM	5960	NH1	ARG	B	333	-46.250	77.652	-1.397	1.00	80.76	B	N
ATOM	5961	NH2	ARG	B	333	-46.124	76.213	-3.196	1.00	79.87	B	N
ATOM	5962	C	ARG	B	333	-47.669	70.686	-0.419	1.00	61.45	B	C
ATOM	5963	O	ARG	B	333	-48.853	70.392	-0.575	1.00	62.42	B	O
ATOM	5964	N	ASN	B	334	-46.699	70.179	-1.174	1.00	60.14	B	N
ATOM	5965	CB	ASN	B	334	-47.011	69.277	-2.260	1.00	58.78	B	C
ATOM	5966	CB	ASN	B	334	-45.963	69.405	-3.358	1.00	59.38	B	C
ATOM	5967	CG	ASN	B	334	-45.859	70.820	-3.868	1.00	61.23	B	C
ATOM	5968	OD1	ASN	B	334	-46.634	71.690	-3.462	1.00	62.90	B	O
ATOM	5969	ND2	ASN	B	334	-44.908	71.067	-4.758	1.00	62.88	B	N
ATOM	5970	C	ASN	B	334	-47.180	67.830	-1.841	1.00	57.09	B	C
ATOM	5971	O	ASN	B	334	-48.254	67.435	-1.372	1.00	58.61	B	O
ATOM	5972	N	ARG	B	335	-46.129	67.039	-2.000	1.00	53.76	B	N
ATOM	5973	CB	ARG	B	335	-46.201	65.631	-1.659	1.00	50.35	B	C
ATOM	5974	CB	ARG	B	335	-44.817	65.000	-1.663	1.00	49.81	B	C
ATOM	5975	CG	ARG	B	335	-44.078	65.104	-0.373	1.00	48.65	B	C
ATOM	5976	CD	ARG	B	335	-42.766	64.397	-0.540	1.00	49.71	B	C
ATOM	5977	NE	ARG	B	335	-42.362	63.693	0.671	1.00	52.35	B	N
ATOM	5978	CZ	ARG	B	335	-41.521	64.181	1.569	1.00	52.19	B	C
ATOM	5979	NH1	ARG	B	335	-40.987	65.384	1.387	1.00	53.60	B	N
ATOM	5980	NH2	ARG	B	335	-41.219	63.465	2.642	1.00	52.28	B	N
ATOM	5981	C	ARG	B	335	-46.884	65.320	-0.339	1.00	48.36	B	C
ATOM	5982	O	ARG	B	335	-47.187	66.199	0.463	1.00	47.98	B	O
ATOM	5983	N	SER	B	336	-47.123	64.039	-0.126	1.00	46.16	B	N
ATOM	5984	CB	SER	B	336	-47.792	63.596	1.070	1.00	44.75	B	C
ATOM	5985	CB	SER	B	336	-48.825	62.539	0.702	1.00	47.04	B	C
ATOM	5986	OG	SER	B	336	-49.784	63.093	-0.183	1.00	52.24	B	O
ATOM	5987	C	SER	B	336	-46.826	63.049	2.097	1.00	42.21	B	C
ATOM	5988	O	SER	B	336	-45.774	62.513	1.760	1.00	42.75	B	O
ATOM	5989	N	PRO	B	337	-47.172	63.195	3.379	1.00	39.33	B	N
ATOM	5990	CD	PRO	B	337	-48.333	63.926	3.915	1.00	37.01	B	C
ATOM	5991	CB	PRO	B	337	-46.316	62.700	4.453	1.00	38.76	B	C
ATOM	5992	CB	PRO	B	337	-47.147	62.970	5.696	1.00	36.77	B	C
ATOM	5993	CG	PRO	B	337	-47.928	64.191	5.335	1.00	36.78	B	C

Figure 1

ATOM	5994	C	PRO B 337	-46.029	61.213	4.291	1.00	39.81	B	C
ATOM	5995	O	PRO B 337	-46.925	60.446	3.940	1.00	42.91	B	O
ATOM	5996	N	CYS B 338	-44.790	60.789	4.510	1.00	39.33	B	N
ATOM	5997	CB	CYS B 338	-44.500	59.360	4.439	1.00	38.63	B	C
ATOM	5998	CB	CYS B 338	-43.546	59.007	3.292	1.00	39.85	B	C
ATOM	5999	SG	CYS B 338	-41.920	59.796	3.335	1.00	46.49	B	S
ATOM	6000	C	CYS B 338	-43.902	58.977	5.780	1.00	37.07	B	C
ATOM	6001	O	CYS B 338	-43.561	59.844	6.578	1.00	36.06	B	O
ATOM	6002	N	MET B 339	-43.788	57.688	6.050	1.00	36.00	B	N
ATOM	6003	CB	MET B 339	-43.253	57.286	7.329	1.00	35.61	B	C
ATOM	6004	CB	MET B 339	-43.450	55.790	7.548	1.00	33.01	B	C
ATOM	6005	CG	MET B 339	-44.784	55.466	8.128	1.00	31.26	B	C
ATOM	6006	SD	MET B 339	-45.172	56.620	9.476	1.00	33.05	B	S
ATOM	6007	CE	MET B 339	-44.130	56.107	10.809	1.00	29.13	B	C
ATOM	6008	C	MET B 339	-41.792	57.641	7.507	1.00	37.33	B	C
ATOM	6009	O	MET B 339	-41.221	57.399	8.564	1.00	38.32	B	O
ATOM	6010	N	GLN B 340	-41.177	58.227	6.487	1.00	38.89	B	N
ATOM	6011	CB	GLN B 340	-39.771	58.577	6.588	1.00	39.34	B	C
ATOM	6012	CB	GLN B 340	-39.095	58.448	5.231	1.00	40.87	B	C
ATOM	6013	CG	GLN B 340	-38.433	57.114	4.964	1.00	44.39	B	C
ATOM	6014	CD	GLN B 340	-37.577	57.174	3.694	1.00	48.35	B	C
ATOM	6015	OE1	GLN B 340	-36.734	58.073	3.541	1.00	50.60	B	O
ATOM	6016	NE2	GLN B 340	-37.789	56.225	2.781	1.00	49.24	B	N
ATOM	6017	C	GLN B 340	-39.517	59.965	7.143	1.00	39.51	B	C
ATOM	6018	O	GLN B 340	-38.388	60.311	7.448	1.00	39.63	B	O
ATOM	6019	N	ASP B 341	-40.556	60.769	7.291	1.00	41.21	B	N
ATOM	6020	CB	ASP B 341	-40.356	62.114	7.807	1.00	42.59	B	C
ATOM	6021	CB	ASP B 341	-41.341	63.090	7.184	1.00	45.83	B	C
ATOM	6022	CG	ASP B 341	-41.376	62.992	5.681	1.00	48.98	B	C
ATOM	6023	OD1	ASP B 341	-40.283	62.841	5.079	1.00	51.48	B	O
ATOM	6024	OD2	ASP B 341	-42.488	63.069	5.105	1.00	48.49	B	O
ATOM	6025	C	ASP B 341	-40.505	62.220	9.294	1.00	43.09	B	C
ATOM	6026	O	ASP B 341	-40.552	63.323	9.826	1.00	43.53	B	O
ATOM	6027	N	ARG B 342	-40.585	61.094	9.976	1.00	43.35	B	N
ATOM	6028	CB	ARG B 342	-40.750	61.159	11.410	1.00	44.11	B	C
ATOM	6029	CB	ARG B 342	-41.368	59.849	11.913	1.00	43.91	B	C
ATOM	6030	CG	ARG B 342	-41.496	59.739	13.405	1.00	42.66	B	C
ATOM	6031	CD	ARG B 342	-42.739	59.024	13.753	1.00	45.91	B	C
ATOM	6032	NE	ARG B 342	-42.753	57.640	13.289	1.00	50.90	B	N
ATOM	6033	CZ	ARG B 342	-42.117	56.648	13.897	1.00	53.14	B	C
ATOM	6034	NH1	ARG B 342	-41.414	56.903	14.994	1.00	55.08	B	N
ATOM	6035	NH2	ARG B 342	-42.200	55.406	13.429	1.00	53.21	B	N
ATOM	6036	C	ARG B 342	-39.429	61.481	12.119	1.00	45.09	B	C
ATOM	6037	O	ARG B 342	-39.418	62.213	13.111	1.00	45.40	B	O
ATOM	6038	N	SER B 343	-38.325	60.943	11.614	1.00	45.20	B	N
ATOM	6039	CB	SER B 343	-37.026	61.214	12.203	1.00	46.54	B	C
ATOM	6040	CB	SER B 343	-35.960	60.377	11.533	1.00	49.88	B	C
ATOM	6041	OG	SER B 343	-35.901	60.748	10.171	1.00	56.25	B	O
ATOM	6042	C	SER B 343	-36.667	62.684	12.021	1.00	45.25	B	C
ATOM	6043	O	SER B 343	-36.071	63.300	12.898	1.00	47.21	B	O
ATOM	6044	N	HIS B 344	-37.009	63.261	10.883	1.00	43.07	B	N
ATOM	6045	CB	HIS B 344	-36.687	64.665	10.686	1.00	43.16	B	C
ATOM	6046	CB	HIS B 344	-36.559	64.988	9.201	1.00	44.79	B	C
ATOM	6047	CG	HIS B 344	-35.720	64.002	8.468	1.00	48.47	B	C
ATOM	6048	CD2	HIS B 344	-34.656	63.270	8.875	1.00	49.90	B	C
ATOM	6049	ND1	HIS B 344	-36.018	63.573	7.191	1.00	49.91	B	N
ATOM	6050	CE1	HIS B 344	-35.179	62.612	6.849	1.00	51.06	B	C
ATOM	6051	NE2	HIS B 344	-34.344	62.407	7.853	1.00	51.45	B	N
ATOM	6052	C	HIS B 344	-37.752	65.532	11.308	1.00	41.72	B	C
ATOM	6053	O	HIS B 344	-37.801	66.734	11.064	1.00	42.32	B	O
ATOM	6054	N	MET B 345	-38.610	64.919	12.113	1.00	39.61	B	N
ATOM	6055	CB	MET B 345	-39.679	65.650	12.775	1.00	37.78	B	C
ATOM	6056	CB	MET B 345	-40.993	65.433	12.047	1.00	34.92	B	C
ATOM	6057	CG	MET B 345	-40.998	66.006	10.678	1.00	31.25	B	C
ATOM	6058	SD	MET B 345	-42.429	65.540	9.763	1.00	31.14	B	S
ATOM	6059	CE	MET B 345	-43.561	66.746	10.324	1.00	27.69	B	C
ATOM	6060	C	MET B 345	-39.831	65.230	14.231	1.00	38.18	B	C
ATOM	6061	O	MET B 345	-40.875	64.720	14.639	1.00	36.94	B	O
ATOM	6062	N	PRO B 346	-38.788	65.471	15.041	1.00	38.71	B	N
ATOM	6063	CD	PRO B 346	-37.557	66.206	14.702	1.00	38.34	B	C
ATOM	6064	CB	PRO B 346	-38.786	65.118	16.460	1.00	38.00	B	C
ATOM	6065	CB	PRO B 346	-37.418	65.601	16.929	1.00	37.86	B	C
ATOM	6066	CG	PRO B 346	-37.164	66.766	16.039	1.00	38.00	B	C
ATOM	6067	C	PRO B 346	-39.901	65.746	17.259	1.00	36.76	B	C
ATOM	6068	O	PRO B 346	-40.399	65.147	18.212	1.00	37.92	B	O

Figure 1

ATOM	6069	N	TYR	B	347	-40.299	66.951	16.878	1.00	34.31	B	N
ATOM	6070	CB	TYR	B	347	-41.340	67.616	17.631	1.00	32.48	B	C
ATOM	6071	CB	TYR	B	347	-41.407	69.077	17.258	1.00	31.22	B	C
ATOM	6072	CG	TYR	B	347	-42.367	69.822	18.125	1.00	31.44	B	C
ATOM	6073	CD1	TYR	B	347	-41.995	70.259	19.386	1.00	31.31	B	C
ATOM	6074	CE1	TYR	B	347	-42.897	70.910	20.208	1.00	32.58	B	C
ATOM	6075	CD2	TYR	B	347	-43.663	70.053	17.704	1.00	31.92	B	C
ATOM	6076	CE2	TYR	B	347	-44.571	70.699	18.515	1.00	33.53	B	C
ATOM	6077	C2	TYR	B	347	-44.188	71.129	19.767	1.00	33.11	B	C
ATOM	6078	OH	TYR	B	347	-45.093	71.795	20.566	1.00	33.32	B	O
ATOM	6079	C	TYR	B	347	-42.706	66.970	17.421	1.00	31.71	B	C
ATOM	6080	O	TYR	B	347	-43.471	66.779	18.374	1.00	31.15	B	O
ATOM	6081	N	THR	B	348	-43.012	66.653	16.167	1.00	30.20	B	N
ATOM	6082	CB	THR	B	348	-44.278	66.020	15.828	1.00	28.31	B	C
ATOM	6083	CB	THR	B	348	-44.428	65.865	14.336	1.00	26.89	B	C
ATOM	6084	OG1	THR	B	348	-44.347	67.154	13.726	1.00	30.47	B	O
ATOM	6085	CG2	THR	B	348	-45.748	65.223	14.003	1.00	22.83	B	C
ATOM	6086	C	THR	B	348	-44.278	64.637	16.443	1.00	28.63	B	C
ATOM	6087	O	THR	B	348	-45.228	64.228	17.113	1.00	29.24	B	O
ATOM	6088	N	ASP	B	349	-43.194	63.914	16.210	1.00	28.11	B	N
ATOM	6089	CB	ASP	B	349	-43.061	62.596	16.771	1.00	26.94	B	C
ATOM	6090	CB	ASP	B	349	-41.650	62.052	16.591	1.00	28.71	B	C
ATOM	6091	CG	ASP	B	349	-41.578	60.535	16.774	1.00	31.24	B	C
ATOM	6092	OD1	ASP	B	349	-42.498	59.965	17.406	1.00	31.78	B	O
ATOM	6093	OD2	ASP	B	349	-40.595	59.907	16.293	1.00	32.29	B	O
ATOM	6094	C	ASP	B	349	-43.323	62.782	18.245	1.00	26.55	B	C
ATOM	6095	O	ASP	B	349	-43.973	61.948	18.868	1.00	27.03	B	O
ATOM	6096	N	ALB	B	350	-42.847	63.883	18.815	1.00	25.81	B	N
ATOM	6097	CB	ALB	B	350	-43.078	64.085	20.245	1.00	26.75	B	C
ATOM	6098	CB	ALB	B	350	-42.356	65.300	20.734	1.00	27.09	B	C
ATOM	6099	C	ALB	B	350	-44.541	64.194	20.615	1.00	26.95	B	C
ATOM	6100	O	ALB	B	350	-44.993	63.529	21.546	1.00	25.94	B	O
ATOM	6101	N	VAL	B	351	-45.278	65.035	19.898	1.00	26.06	B	N
ATOM	6102	CB	VAL	B	351	-46.683	65.206	20.202	1.00	24.87	B	C
ATOM	6103	CB	VAL	B	351	-47.364	66.120	19.202	1.00	25.78	B	C
ATOM	6104	CG1	VAL	B	351	-48.871	66.124	19.456	1.00	26.61	B	C
ATOM	6105	CG2	VAL	B	351	-46.810	67.521	19.341	1.00	26.54	B	C
ATOM	6106	C	VAL	B	351	-47.442	63.897	20.232	1.00	24.60	B	C
ATOM	6107	O	VAL	B	351	-48.151	63.600	21.204	1.00	24.32	B	O
ATOM	6108	N	VAL	B	352	-47.289	63.113	19.169	1.00	21.28	B	N
ATOM	6109	CB	VAL	B	352	-47.988	61.845	19.093	1.00	18.55	B	C
ATOM	6110	CB	VAL	B	352	-47.589	61.087	17.861	1.00	17.26	B	C
ATOM	6111	CG1	VAL	B	352	-48.346	59.767	17.794	1.00	13.51	B	C
ATOM	6112	CG2	VAL	B	352	-47.860	61.950	16.658	1.00	16.99	B	C
ATOM	6113	C	VAL	B	352	-47.742	60.996	20.322	1.00	18.84	B	C
ATOM	6114	O	VAL	B	352	-48.682	60.471	20.919	1.00	19.12	B	O
ATOM	6115	N	HIS	B	353	-46.484	60.856	20.711	1.00	18.05	B	N
ATOM	6116	CB	HIS	B	353	-46.176	60.087	21.906	1.00	18.26	B	C
ATOM	6117	CB	HIS	B	353	-44.679	60.115	22.178	1.00	15.92	B	C
ATOM	6118	CG	HIS	B	353	-43.906	59.209	21.287	1.00	15.03	B	C
ATOM	6119	CD2	HIS	B	353	-43.650	59.276	19.960	1.00	16.27	B	C
ATOM	6120	ND1	HIS	B	353	-43.420	57.993	21.712	1.00	14.53	B	N
ATOM	6121	CE1	HIS	B	353	-42.910	57.346	20.681	1.00	17.38	B	C
ATOM	6122	NE2	HIS	B	353	-43.040	58.102	19.604	1.00	16.37	B	N
ATOM	6123	C	HIS	B	353	-46.923	60.686	23.089	1.00	20.12	B	C
ATOM	6124	O	HIS	B	353	-47.650	59.982	23.788	1.00	20.35	B	O
ATOM	6125	N	GLU	B	354	-46.760	61.999	23.284	1.00	21.58	B	N
ATOM	6126	CB	GLU	B	354	-47.401	62.719	24.393	1.00	22.01	B	C
ATOM	6127	CB	GLU	B	354	-47.074	64.235	24.353	1.00	22.14	B	C
ATOM	6128	CG	GLU	B	354	-47.555	65.079	25.584	1.00	20.91	B	C
ATOM	6129	CD	GLU	B	354	-47.047	64.540	26.902	1.00	22.70	B	C
ATOM	6130	OE1	GLU	B	354	-46.232	63.620	26.835	1.00	25.54	B	O
ATOM	6131	OE2	GLU	B	354	-47.446	65.011	27.999	1.00	23.82	B	O
ATOM	6132	C	GLU	B	354	-48.911	62.520	24.462	1.00	22.30	B	C
ATOM	6133	O	GLU	B	354	-49.479	62.532	25.559	1.00	23.86	B	O
ATOM	6134	N	VAL	B	355	-49.566	62.340	23.318	1.00	20.22	B	N
ATOM	6135	CB	VAL	B	355	-51.004	62.114	23.333	1.00	20.12	B	C
ATOM	6136	CB	VAL	B	355	-51.589	62.195	21.917	1.00	19.23	B	C
ATOM	6137	CG1	VAL	B	355	-53.071	61.921	21.964	1.00	20.32	B	C
ATOM	6138	CG2	VAL	B	355	-51.322	63.563	21.346	1.00	18.88	B	C
ATOM	6139	C	VAL	B	355	-51.247	60.717	23.943	1.00	19.51	B	C
ATOM	6140	O	VAL	B	355	-51.909	60.569	24.971	1.00	18.69	B	O
ATOM	6141	N	GLN	B	356	-50.666	59.704	23.322	1.00	18.09	B	N
ATOM	6142	CB	GLN	B	356	-50.795	58.362	23.819	1.00	18.35	B	C
ATOM	6143	CB	GLN	B	356	-49.838	57.439	23.066	1.00	18.58	B	C

Figure 1

ATOM	6144	CG	GLN	B	356	-50.210	57.322	21.607	1.00	18.28	B	C
ATOM	6145	CD	GLN	B	356	-49.672	56.090	20.956	1.00	19.53	B	C
ATOM	6146	OE1	GLN	B	356	-48.733	56.159	20.178	1.00	22.44	B	O
ATOM	6147	NE2	GLN	B	356	-50.267	54.948	21.261	1.00	16.13	B	N
ATOM	6148	C	GLN	B	356	-50.535	58.263	25.322	1.00	18.52	B	C
ATOM	6149	O	GLN	B	356	-51.265	57.579	26.034	1.00	19.07	B	O
ATOM	6150	N	ARG	B	357	-49.503	58.944	25.804	1.00	18.88	B	N
ATOM	6151	CB	ARG	B	357	-49.154	58.905	27.219	1.00	20.61	B	C
ATOM	6152	CG	ARG	B	357	-47.754	59.484	27.443	1.00	20.39	B	C
ATOM	6153	CB	ARG	B	357	-47.267	59.338	28.883	1.00	18.60	B	C
ATOM	6154	CD	ARG	B	357	-46.369	60.468	29.268	1.00	16.56	B	C
ATOM	6155	NE	ARG	B	357	-47.092	61.736	29.316	1.00	19.70	B	N
ATOM	6156	CZ	ARG	B	357	-47.743	62.204	30.378	1.00	21.07	B	C
ATOM	6157	NH1	ARG	B	357	-48.370	63.379	30.303	1.00	18.02	B	N
ATOM	6158	NH2	ARG	B	357	-47.759	61.503	31.508	1.00	22.37	B	N
ATOM	6159	C	ARG	B	357	-50.120	59.672	28.092	1.00	22.06	B	C
ATOM	6160	O	ARG	B	357	-50.415	59.269	29.211	1.00	22.77	B	O
ATOM	6161	N	TYR	B	358	-50.586	60.799	27.579	1.00	23.97	B	N
ATOM	6162	CB	TYR	B	358	-51.484	61.646	28.329	1.00	25.69	B	C
ATOM	6163	CB	TYR	B	358	-51.564	63.028	27.672	1.00	25.51	B	C
ATOM	6164	CG	TYR	B	358	-52.596	63.940	28.288	1.00	27.13	B	C
ATOM	6165	CD1	TYR	B	358	-53.880	64.003	27.767	1.00	28.47	B	C
ATOM	6166	CE1	TYR	B	358	-54.843	64.823	28.326	1.00	28.33	B	C
ATOM	6167	CD2	TYR	B	358	-52.300	64.725	29.394	1.00	27.13	B	C
ATOM	6168	CE2	TYR	B	358	-53.264	65.552	29.965	1.00	27.59	B	C
ATOM	6169	CZ	TYR	B	358	-54.530	65.591	29.421	1.00	28.41	B	C
ATOM	6170	OH	TYR	B	358	-55.505	66.390	29.969	1.00	31.05	B	O
ATOM	6171	C	TYR	B	358	-52.856	61.026	28.455	1.00	25.71	B	C
ATOM	6172	O	TYR	B	358	-53.358	60.837	29.560	1.00	26.05	B	O
ATOM	6173	N	ILE	B	359	-53.441	60.667	27.318	1.00	25.69	B	N
ATOM	6174	CB	ILE	B	359	-54.785	60.106	27.310	1.00	25.38	B	C
ATOM	6175	CB	ILE	B	359	-55.325	59.986	25.895	1.00	24.89	B	C
ATOM	6176	CG2	ILE	B	359	-55.052	61.280	25.167	1.00	26.83	B	C
ATOM	6177	CG1	ILE	B	359	-54.715	58.770	25.181	1.00	24.77	B	C
ATOM	6178	CD1	ILE	B	359	-55.194	58.599	23.727	1.00	21.25	B	C
ATOM	6179	C	ILE	B	359	-54.934	58.774	27.991	1.00	25.68	B	C
ATOM	6180	O	ILE	B	359	-55.955	58.479	28.596	1.00	27.67	B	O
ATOM	6181	N	ASP	B	360	-53.923	57.943	27.880	1.00	25.88	B	N
ATOM	6182	CB	ASP	B	360	-53.992	56.654	28.524	1.00	24.83	B	C
ATOM	6183	CB	ASP	B	360	-53.737	56.831	29.998	1.00	25.20	B	C
ATOM	6184	CG	ASP	B	360	-53.765	55.533	30.707	1.00	29.82	B	C
ATOM	6185	OD1	ASP	B	360	-53.761	55.522	31.969	1.00	29.12	B	O
ATOM	6186	OD2	ASP	B	360	-53.800	54.509	29.968	1.00	29.97	B	O
ATOM	6187	C	ASP	B	360	-55.325	55.932	28.321	1.00	22.66	B	C
ATOM	6188	O	ASP	B	360	-56.111	55.804	29.239	1.00	24.04	B	O
ATOM	6189	N	LEU	B	361	-55.546	55.439	27.110	1.00	22.58	B	N
ATOM	6190	CB	LEU	B	361	-56.765	54.739	26.717	1.00	20.37	B	C
ATOM	6191	CB	LEU	B	361	-56.732	54.537	25.209	1.00	16.71	B	C
ATOM	6192	CG	LEU	B	361	-57.595	55.552	24.447	1.00	18.53	B	C
ATOM	6193	CD1	LEU	B	361	-57.581	56.889	25.169	1.00	16.78	B	C
ATOM	6194	CD2	LEU	B	361	-57.141	55.665	22.988	1.00	16.10	B	C
ATOM	6195	C	LEU	B	361	-57.128	53.424	27.404	1.00	20.79	B	C
ATOM	6196	O	LEU	B	361	-58.299	53.110	27.528	1.00	22.24	B	O
ATOM	6197	N	LEU	B	362	-56.127	52.657	27.817	1.00	21.92	B	N
ATOM	6198	CB	LEU	B	362	-56.315	51.382	28.498	1.00	22.97	B	C
ATOM	6199	CB	LEU	B	362	-55.723	50.245	27.670	1.00	21.35	B	C
ATOM	6200	CG	LEU	B	362	-56.362	49.956	26.323	1.00	20.42	B	C
ATOM	6201	CD1	LEU	B	362	-57.720	50.578	26.306	1.00	23.19	B	C
ATOM	6202	CD2	LEU	B	362	-55.536	50.533	25.204	1.00	22.71	B	C
ATOM	6203	C	LEU	B	362	-55.589	51.409	29.854	1.00	25.55	B	C
ATOM	6204	O	LEU	B	362	-54.634	50.656	30.055	1.00	25.88	B	O
ATOM	6205	N	PRO	B	363	-56.040	52.259	30.802	1.00	26.02	B	N
ATOM	6206	CD	PRO	B	363	-57.303	53.010	30.812	1.00	26.25	B	C
ATOM	6207	CB	PRO	B	363	-55.395	52.347	32.113	1.00	26.66	B	C
ATOM	6208	CB	PRO	B	363	-56.431	53.074	32.964	1.00	26.82	B	C
ATOM	6209	CG	PRO	B	363	-57.727	52.847	32.236	1.00	27.65	B	C
ATOM	6210	C	PRO	B	363	-54.928	51.024	32.716	1.00	27.85	B	C
ATOM	6211	O	PRO	B	363	-54.156	51.002	33.685	1.00	27.91	B	O
ATOM	6212	N	THR	B	364	-55.425	49.925	32.163	1.00	29.09	B	N
ATOM	6213	CB	THR	B	364	-55.025	48.566	32.554	1.00	31.60	B	C
ATOM	6214	CB	THR	B	364	-55.939	47.968	33.644	1.00	31.15	B	C
ATOM	6215	CG1	THR	B	364	-57.300	48.289	33.367	1.00	34.37	B	O
ATOM	6216	CG2	THR	B	364	-55.575	48.506	35.002	1.00	31.76	B	C
ATOM	6217	C	THR	B	364	-55.223	47.821	31.247	1.00	33.11	B	C
ATOM	6218	O	THR	B	364	-56.357	47.553	30.862	1.00	38.84	B	O

Figure 1

ATOM	6219	N	SER	B	365	-54.152	47.519	30.526	1.00	31.72	B	N
ATOM	6220	CB	SER	B	365	-54.323	46.851	29.240	1.00	31.29	B	C
ATOM	6221	CB	SER	B	365	-52.944	46.489	28.659	1.00	30.31	B	C
ATOM	6222	OG	SER	B	365	-52.534	45.182	29.003	1.00	29.75	B	O
ATOM	6223	C	SER	B	365	-55.209	45.607	29.430	1.00	31.52	B	C
ATOM	6224	O	SER	B	365	-55.559	45.276	30.562	1.00	35.37	B	O
ATOM	6225	N	LEU	B	366	-55.587	44.921	28.357	1.00	29.61	B	N
ATOM	6226	CB	LEU	B	366	-56.421	43.721	28.499	1.00	28.76	B	C
ATOM	6227	CB	LEU	B	366	-56.493	42.952	27.163	1.00	28.55	B	C
ATOM	6228	CG	LEU	B	366	-56.964	43.717	25.913	1.00	27.30	B	C
ATOM	6229	CD1	LEU	B	366	-57.254	42.785	24.740	1.00	27.44	B	C
ATOM	6230	CD2	LEU	B	366	-58.196	44.482	26.267	1.00	27.91	B	C
ATOM	6231	C	LEU	B	366	-55.791	42.832	29.589	1.00	28.35	B	C
ATOM	6232	O	LEU	B	366	-54.571	42.016	29.720	1.00	29.01	B	O
ATOM	6233	N	PRO	B	367	-56.611	42.106	30.390	1.00	26.71	B	N
ATOM	6234	CD	PRO	B	367	-58.075	42.148	30.306	1.00	25.97	B	C
ATOM	6235	CB	PRO	B	367	-56.218	41.209	31.481	1.00	26.25	B	C
ATOM	6236	CB	PRO	B	367	-57.541	40.632	31.953	1.00	24.20	B	C
ATOM	6237	CG	PRO	B	367	-58.488	41.683	31.683	1.00	23.29	B	C
ATOM	6238	C	PRO	B	367	-55.283	40.106	31.052	1.00	27.98	B	C
ATOM	6239	O	PRO	B	367	-55.341	39.652	29.918	1.00	27.89	B	O
ATOM	6240	N	HIS	B	368	-54.438	39.668	31.980	1.00	29.89	B	N
ATOM	6241	CB	HIS	B	368	-53.479	38.604	31.730	1.00	31.37	B	C
ATOM	6242	CB	HIS	B	368	-52.052	39.109	31.992	1.00	31.05	B	C
ATOM	6243	CG	HIS	B	368	-51.528	40.073	30.959	1.00	30.63	B	C
ATOM	6244	CD2	HIS	B	368	-51.761	41.395	30.761	1.00	29.68	B	C
ATOM	6245	ND1	HIS	B	368	-50.636	39.696	29.977	1.00	30.15	B	N
ATOM	6246	CE1	HIS	B	368	-50.350	40.741	29.219	1.00	27.57	B	C
ATOM	6247	NE2	HIS	B	368	-51.018	41.784	29.673	1.00	25.29	B	N
ATOM	6248	C	HIS	B	368	-53.812	37.444	32.678	1.00	33.69	B	C
ATOM	6249	O	HIS	B	368	-54.817	37.475	33.388	1.00	34.02	B	O
ATOM	6250	N	ALB	B	369	-52.965	36.423	32.688	1.00	35.79	B	N
ATOM	6251	CB	ALB	B	369	-53.166	35.263	33.548	1.00	37.21	B	C
ATOM	6252	CB	ALB	B	369	-54.353	34.447	33.049	1.00	35.38	B	C
ATOM	6253	C	ALB	B	369	-51.886	34.432	33.491	1.00	39.20	B	C
ATOM	6254	O	ALB	B	369	-51.420	34.092	32.403	1.00	40.02	B	O
ATOM	6255	N	VAL	B	370	-51.306	34.123	34.649	1.00	41.55	B	N
ATOM	6256	CB	VAL	B	370	-50.080	33.320	34.678	1.00	44.82	B	C
ATOM	6257	CB	VAL	B	370	-49.504	33.216	36.097	1.00	44.24	B	C
ATOM	6258	CG1	VAL	B	370	-49.146	34.603	36.615	1.00	43.13	B	C
ATOM	6259	CG2	VAL	B	370	-50.505	32.555	37.010	1.00	44.26	B	C
ATOM	6260	C	VAL	B	370	-50.343	31.913	34.156	1.00	46.76	B	C
ATOM	6261	O	VAL	B	370	-51.456	31.413	34.263	1.00	47.48	B	O
ATOM	6262	N	THR	B	371	-49.322	31.278	33.593	1.00	49.35	B	N
ATOM	6263	CB	THR	B	371	-49.462	29.925	33.046	1.00	52.61	B	C
ATOM	6264	CB	THR	B	371	-48.830	29.827	31.663	1.00	53.22	B	C
ATOM	6265	OG1	THR	B	371	-48.338	31.119	31.276	1.00	52.18	B	O
ATOM	6266	CG2	THR	B	371	-49.849	29.289	30.648	1.00	54.60	B	C
ATOM	6267	C	THR	B	371	-48.760	28.885	33.894	1.00	54.39	B	C
ATOM	6268	O	THR	B	371	-48.590	27.745	33.475	1.00	53.90	B	O
ATOM	6269	N	CYS	B	372	-48.340	29.301	35.077	1.00	57.58	B	N
ATOM	6270	CB	CYS	B	372	-47.610	28.447	35.987	1.00	61.26	B	C
ATOM	6271	CB	CYS	B	372	-46.108	28.594	35.767	1.00	62.07	B	C
ATOM	6272	SG	CYS	B	372	-45.461	28.053	34.188	1.00	66.07	B	S
ATOM	6273	C	CYS	B	372	-47.887	28.933	37.378	1.00	63.31	B	C
ATOM	6274	O	CYS	B	372	-48.610	29.905	37.576	1.00	64.75	B	O
ATOM	6275	N	ASP	B	373	-47.270	28.280	38.348	1.00	64.45	B	N
ATOM	6276	CB	ASP	B	373	-47.454	28.701	39.713	1.00	65.63	B	C
ATOM	6277	CB	ASP	B	373	-47.541	27.492	40.628	1.00	66.44	B	C
ATOM	6278	CG	ASP	B	373	-48.894	26.854	40.589	1.00	67.17	B	C
ATOM	6279	OD1	ASP	B	373	-49.486	26.825	39.494	1.00	67.20	B	O
ATOM	6280	OD2	ASP	B	373	-49.367	26.388	41.646	1.00	69.25	B	O
ATOM	6281	C	ASP	B	373	-46.303	29.587	40.121	1.00	65.78	B	C
ATOM	6282	O	ASP	B	373	-45.766	29.443	41.216	1.00	67.57	B	O
ATOM	6283	N	ILE	B	374	-45.934	30.523	39.254	1.00	64.68	B	N
ATOM	6284	CB	ILE	B	374	-44.826	31.412	39.570	1.00	64.44	B	C
ATOM	6285	CB	ILE	B	374	-44.642	32.500	38.478	1.00	62.54	B	C
ATOM	6286	CG2	ILE	B	374	-44.432	31.854	37.136	1.00	62.77	B	C
ATOM	6287	CG1	ILE	B	374	-45.875	33.389	38.386	1.00	61.31	B	C
ATOM	6288	CD1	ILE	B	374	-45.859	34.539	39.327	1.00	61.00	B	C
ATOM	6289	C	ILE	B	374	-44.991	32.096	40.929	1.00	65.35	B	C
ATOM	6290	O	ILE	B	374	-46.104	32.236	41.445	1.00	65.09	B	O
ATOM	6291	N	LYS	B	375	-43.864	32.487	41.514	1.00	65.89	B	N
ATOM	6292	CB	LYS	B	375	-43.863	33.183	42.792	1.00	66.45	B	C
ATOM	6293	CB	LYS	B	375	-43.055	32.418	43.853	1.00	67.20	B	C

Figure 1

ATOM	6294	CG	LYS	B	375	-41.761	31.790	43.346	1.00	69.15	B	C
ATOM	6295	CD	LYS	B	375	-42.036	30.543	42.497	1.00	70.92	B	C
ATOM	6296	CE	LYS	B	375	-42.561	29.389	43.370	1.00	72.48	B	C
ATOM	6297	NZ	LYS	B	375	-42.952	28.156	42.602	1.00	72.49	B	N
ATOM	6298	C	LYS	B	375	-43.258	34.557	42.569	1.00	66.05	B	C
ATOM	6299	O	LYS	B	375	-42.129	34.830	42.954	1.00	68.24	B	O
ATOM	6300	N	PHE	B	376	-44.015	35.424	41.925	1.00	64.23	B	N
ATOM	6301	CB	PHE	B	376	-43.540	36.760	41.654	1.00	62.63	B	C
ATOM	6302	CB	PHE	B	376	-44.648	37.560	40.993	1.00	59.42	B	C
ATOM	6303	CG	PHE	B	376	-44.217	38.891	40.515	1.00	55.85	B	C
ATOM	6304	CD1	PHE	B	376	-43.281	39.005	39.501	1.00	55.27	B	C
ATOM	6305	CD2	PHE	B	376	-44.749	40.037	41.075	1.00	54.53	B	C
ATOM	6306	CE1	PHE	B	376	-42.881	40.249	39.054	1.00	55.27	B	C
ATOM	6307	CE2	PHE	B	376	-44.363	41.273	40.641	1.00	53.88	B	C
ATOM	6308	CZ	PHE	B	376	-43.427	41.387	39.629	1.00	55.99	B	C
ATOM	6309	C	PHE	B	376	-43.097	37.453	42.939	1.00	63.77	B	C
ATOM	6310	O	PHE	B	376	-43.824	37.449	43.936	1.00	63.38	B	O
ATOM	6311	N	ARG	B	377	-41.909	38.055	42.906	1.00	65.04	B	N
ATOM	6312	CB	ARG	B	377	-41.369	38.749	44.068	1.00	65.51	B	C
ATOM	6313	CB	ARG	B	377	-42.318	39.867	44.493	1.00	63.50	B	C
ATOM	6314	CG	ARG	B	377	-42.340	41.067	43.551	1.00	61.32	B	C
ATOM	6315	CD	ARG	B	377	-41.230	42.022	43.918	1.00	58.82	B	C
ATOM	6316	NE	ARG	B	377	-41.531	43.433	43.696	1.00	55.06	B	N
ATOM	6317	CZ	ARG	B	377	-41.520	44.021	42.507	1.00	53.84	B	C
ATOM	6318	NH1	ARG	B	377	-41.232	43.317	41.426	1.00	54.33	B	N
ATOM	6319	NH2	ARG	B	377	-41.764	45.318	42.402	1.00	53.97	B	N
ATOM	6320	C	ARG	B	377	-41.178	37.747	45.199	1.00	67.10	B	C
ATOM	6321	O	ARG	B	377	-40.072	37.258	45.434	1.00	68.79	B	O
ATOM	6322	N	ASN	B	378	-42.256	37.433	45.901	1.00	67.34	B	N
ATOM	6323	CB	ASN	B	378	-42.167	36.470	46.979	1.00	67.66	B	C
ATOM	6324	CB	ASN	B	378	-41.257	37.011	48.083	1.00	68.64	B	C
ATOM	6325	CG	ASN	B	378	-40.434	35.915	48.749	1.00	70.93	B	C
ATOM	6326	OD1	ASN	B	378	-40.507	35.727	49.970	1.00	72.31	B	O
ATOM	6327	ND2	ASN	B	378	-39.644	35.190	47.950	1.00	70.66	B	N
ATOM	6328	C	ASN	B	378	-43.569	36.216	47.510	1.00	67.57	B	C
ATOM	6329	O	ASN	B	378	-43.755	35.901	48.685	1.00	67.52	B	O
ATOM	6330	N	TYR	B	379	-44.554	36.352	46.623	1.00	67.16	B	N
ATOM	6331	CB	TYR	B	379	-45.950	36.169	46.991	1.00	65.23	B	C
ATOM	6332	CB	TYR	B	379	-46.745	37.404	46.612	1.00	64.54	B	C
ATOM	6333	CG	TYR	B	379	-46.434	38.586	47.486	1.00	64.45	B	C
ATOM	6334	CD1	TYR	B	379	-46.872	38.626	48.798	1.00	64.40	B	C
ATOM	6335	CE1	TYR	B	379	-46.595	39.705	49.616	1.00	64.90	B	C
ATOM	6336	CD2	TYR	B	379	-45.698	39.663	47.004	1.00	64.82	B	C
ATOM	6337	CE2	TYR	B	379	-45.411	40.753	47.817	1.00	65.18	B	C
ATOM	6338	CZ	TYR	B	379	-45.865	40.766	49.126	1.00	65.33	B	C
ATOM	6339	OH	TYR	B	379	-45.594	41.839	49.953	1.00	66.76	B	O
ATOM	6340	C	TYR	B	379	-46.607	34.925	46.415	1.00	65.32	B	C
ATOM	6341	O	TYR	B	379	-47.722	34.571	46.812	1.00	66.83	B	O
ATOM	6342	N	LEU	B	380	-45.934	34.267	45.474	1.00	63.55	B	N
ATOM	6343	CB	LEU	B	380	-46.458	33.029	44.899	1.00	61.98	B	C
ATOM	6344	CB	LEU	B	380	-46.408	31.920	45.951	1.00	61.61	B	C
ATOM	6345	CG	LEU	B	380	-47.026	30.555	45.674	1.00	61.77	B	C
ATOM	6346	CD1	LEU	B	380	-46.446	29.924	44.409	1.00	62.33	B	C
ATOM	6347	CD2	LEU	B	380	-46.752	29.684	46.879	1.00	62.30	B	C
ATOM	6348	C	LEU	B	380	-47.878	33.115	44.350	1.00	61.24	B	C
ATOM	6349	O	LEU	B	380	-48.854	32.975	45.093	1.00	61.52	B	O
ATOM	6350	N	ILE	B	381	-47.985	33.322	43.040	1.00	60.09	B	N
ATOM	6351	CB	ILE	B	381	-49.274	33.407	42.377	1.00	57.67	B	C
ATOM	6352	CB	ILE	B	381	-49.317	34.552	41.358	1.00	57.13	B	C
ATOM	6353	CG2	ILE	B	381	-50.757	34.783	40.916	1.00	56.08	B	C
ATOM	6354	CG1	ILE	B	381	-48.720	35.820	41.967	1.00	56.63	B	C
ATOM	6355	CD1	ILE	B	381	-48.573	36.964	40.980	1.00	56.68	B	C
ATOM	6356	C	ILE	B	381	-49.521	32.106	41.626	1.00	56.74	B	C
ATOM	6357	O	ILE	B	381	-48.725	31.712	40.763	1.00	55.80	B	O
ATOM	6358	N	PRO	B	382	-50.631	31.417	41.953	1.00	55.87	B	N
ATOM	6359	CD	PRO	B	382	-51.595	31.812	42.994	1.00	54.93	B	C
ATOM	6360	CB	PRO	B	382	-51.030	30.147	41.338	1.00	54.53	B	C
ATOM	6361	CB	PRO	B	382	-52.207	29.710	42.196	1.00	53.78	B	C
ATOM	6362	CG	PRO	B	382	-52.796	31.006	42.625	1.00	54.61	B	C
ATOM	6363	C	PRO	B	382	-51.391	30.250	39.856	1.00	54.13	B	C
ATOM	6364	O	PRO	B	382	-51.848	31.288	39.373	1.00	53.18	B	O
ATOM	6365	N	LYS	B	383	-51.172	29.156	39.136	1.00	54.37	B	N
ATOM	6366	CB	LYS	B	383	-51.459	29.112	37.709	1.00	54.48	B	C
ATOM	6367	CB	LYS	B	383	-51.125	27.735	37.139	1.00	56.00	B	C
ATOM	6368	CG	LYS	B	383	-51.439	27.603	35.655	1.00	59.08	B	C

Figure 1

ATOM	6369	CD	LYS	B	383	-51.185	26.196	35.135	1.00	61.92	B	C
ATOM	6370	CE	LYS	B	383	-52.058	25.176	35.861	1.00	64.65	B	C
ATOM	6371	NZ	LYS	B	383	-51.848	23.770	35.383	1.00	67.40	B	N
ATOM	6372	C	LYS	B	383	-52.903	29.446	37.388	1.00	52.99	B	C
ATOM	6373	O	LYS	B	383	-53.813	29.068	38.116	1.00	54.31	B	O
ATOM	6374	N	GLY	B	384	-53.102	30.163	36.288	1.00	51.34	B	N
ATOM	6375	CB	GLY	B	384	-54.440	30.530	35.876	1.00	49.14	B	C
ATOM	6376	C	GLY	B	384	-54.962	31.830	36.454	1.00	48.48	B	C
ATOM	6377	O	GLY	B	384	-55.913	32.394	35.910	1.00	49.09	B	O
ATOM	6378	N	THR	B	385	-54.353	32.313	37.540	1.00	47.00	B	N
ATOM	6379	CB	THR	B	385	-54.777	33.559	38.199	1.00	44.87	B	C
ATOM	6380	CB	THR	B	385	-53.870	33.928	39.391	1.00	45.93	B	C
ATOM	6381	OG1	THR	B	385	-53.674	32.786	40.226	1.00	47.57	B	O
ATOM	6382	CG2	THR	B	385	-54.513	35.055	40.209	1.00	46.50	B	C
ATOM	6383	C	THR	B	385	-54.770	34.778	37.282	1.00	42.49	B	C
ATOM	6384	O	THR	B	385	-53.774	35.072	36.624	1.00	41.81	B	O
ATOM	6385	N	THR	B	386	-55.877	35.508	37.262	1.00	39.80	B	N
ATOM	6386	CB	THR	B	386	-55.941	36.692	36.427	1.00	37.10	B	C
ATOM	6387	CB	THR	B	386	-57.371	37.199	36.318	1.00	37.22	B	C
ATOM	6388	OG1	THR	B	386	-58.077	36.384	35.371	1.00	38.65	B	O
ATOM	6389	CG2	THR	B	386	-57.393	38.633	35.857	1.00	36.65	B	C
ATOM	6390	C	THR	B	386	-55.023	37.805	36.911	1.00	34.29	B	C
ATOM	6391	O	THR	B	386	-54.920	38.078	38.099	1.00	33.82	B	O
ATOM	6392	N	ILE	B	387	-54.349	38.445	35.966	1.00	32.63	B	N
ATOM	6393	CB	ILE	B	387	-53.418	39.502	36.302	1.00	30.30	B	C
ATOM	6394	CB	ILE	B	387	-51.995	39.141	35.878	1.00	29.55	B	C
ATOM	6395	CG2	ILE	B	387	-51.058	40.255	36.273	1.00	28.60	B	C
ATOM	6396	CG1	ILE	B	387	-51.581	37.812	36.497	1.00	30.52	B	C
ATOM	6397	CD1	ILE	B	387	-51.588	37.817	37.998	1.00	29.87	B	C
ATOM	6398	C	ILE	B	387	-53.759	40.767	35.579	1.00	29.54	B	C
ATOM	6399	O	ILE	B	387	-53.830	40.767	34.352	1.00	30.48	B	O
ATOM	6400	N	LEU	B	388	-53.976	41.851	36.309	1.00	28.10	B	N
ATOM	6401	CB	LEU	B	388	-54.252	43.087	35.610	1.00	28.73	B	C
ATOM	6402	CB	LEU	B	388	-55.646	43.619	35.961	1.00	27.75	B	C
ATOM	6403	CG	LEU	B	388	-55.923	44.560	37.106	1.00	30.91	B	C
ATOM	6404	CD1	LEU	B	388	-55.196	45.861	36.842	1.00	31.57	B	C
ATOM	6405	CD2	LEU	B	388	-57.442	44.813	37.203	1.00	30.66	B	C
ATOM	6406	C	LEU	B	388	-53.105	44.050	35.913	1.00	28.56	B	C
ATOM	6407	O	LEU	B	388	-52.718	44.249	37.070	1.00	28.77	B	O
ATOM	6408	N	ILE	B	389	-52.515	44.573	34.841	1.00	27.53	B	N
ATOM	6409	CB	ILE	B	389	-51.374	45.470	34.929	1.00	27.30	B	C
ATOM	6410	CB	ILE	B	389	-50.277	45.094	33.912	1.00	29.70	B	C
ATOM	6411	CG2	ILE	B	389	-49.701	43.705	34.214	1.00	28.10	B	C
ATOM	6412	CG1	ILE	B	389	-50.871	45.028	32.523	1.00	30.35	B	C
ATOM	6413	CD1	ILE	B	389	-49.906	44.460	31.549	1.00	35.27	B	C
ATOM	6414	C	ILE	B	389	-51.736	46.916	34.694	1.00	26.15	B	C
ATOM	6415	O	ILE	B	389	-52.458	47.250	33.776	1.00	27.24	B	O
ATOM	6416	N	SER	B	390	-51.212	47.782	35.545	1.00	27.13	B	N
ATOM	6417	CB	SER	B	390	-51.498	49.192	35.434	1.00	26.28	B	C
ATOM	6418	CB	SER	B	390	-51.413	49.862	36.790	1.00	24.70	B	C
ATOM	6419	OG	SER	B	390	-51.566	51.259	36.630	1.00	27.02	B	O
ATOM	6420	C	SER	B	390	-50.560	49.902	34.476	1.00	25.78	B	C
ATOM	6421	O	SER	B	390	-49.387	50.095	34.769	1.00	27.07	B	O
ATOM	6422	N	LEU	B	391	-51.087	50.290	33.325	1.00	24.11	B	N
ATOM	6423	CB	LEU	B	391	-50.284	51.005	32.365	1.00	23.14	B	C
ATOM	6424	CB	LEU	B	391	-50.922	50.955	30.989	1.00	19.67	B	C
ATOM	6425	CG	LEU	B	391	-51.059	49.573	30.384	1.00	17.20	B	C
ATOM	6426	CD1	LEU	B	391	-51.066	49.693	28.885	1.00	14.78	B	C
ATOM	6427	CD2	LEU	B	391	-49.921	48.691	30.839	1.00	17.48	B	C
ATOM	6428	C	LEU	B	391	-50.196	52.447	32.832	1.00	24.16	B	C
ATOM	6429	O	LEU	B	391	-49.143	53.069	32.773	1.00	25.84	B	O
ATOM	6430	N	THR	B	392	-51.312	52.983	33.290	1.00	23.62	B	N
ATOM	6431	CB	THR	B	392	-51.313	54.342	33.750	1.00	24.60	B	C
ATOM	6432	CB	THR	B	392	-52.666	54.737	34.323	1.00	26.21	B	C
ATOM	6433	OG1	THR	B	392	-52.468	55.751	35.315	1.00	30.28	B	O
ATOM	6434	CG2	THR	B	392	-53.360	53.542	34.934	1.00	26.59	B	C
ATOM	6435	C	THR	B	392	-50.264	54.577	34.812	1.00	23.90	B	C
ATOM	6436	O	THR	B	392	-49.774	55.692	34.966	1.00	23.26	B	O
ATOM	6437	N	SER	B	393	-49.912	53.538	35.553	1.00	24.33	B	N
ATOM	6438	CB	SER	B	393	-48.917	53.721	36.597	1.00	25.79	B	C
ATOM	6439	CB	SER	B	393	-48.820	52.485	37.473	1.00	23.75	B	C
ATOM	6440	OG	SER	B	393	-48.223	51.455	36.725	1.00	24.10	B	O
ATOM	6441	C	SER	B	393	-47.573	53.961	35.934	1.00	26.70	B	C
ATOM	6442	O	SER	B	393	-46.656	54.532	36.521	1.00	29.91	B	O
ATOM	6443	N	VAL	B	394	-47.451	53.499	34.705	1.00	25.79	B	N

Figure 1

ATOM	6444	CB	VAL	B	394	-46.219	53.696	33.995	1.00	25.26	B	C
ATOM	6445	CB	VAL	B	394	-45.891	52.476	33.143	1.00	25.72	B	C
ATOM	6446	CG1	VAL	B	394	-44.668	52.748	32.292	1.00	24.22	B	C
ATOM	6447	CG2	VAL	B	394	-45.667	51.273	34.056	1.00	23.12	B	C
ATOM	6448	C	VAL	B	394	-46.365	54.943	33.131	1.00	26.36	B	C
ATOM	6449	O	VAL	B	394	-45.586	55.882	33.262	1.00	27.11	B	O
ATOM	6450	N	LEU	B	395	-47.376	54.964	32.268	1.00	26.31	B	N
ATOM	6451	CB	LEU	B	395	-47.594	56.110	31.404	1.00	26.40	B	C
ATOM	6452	CB	LEU	B	395	-48.884	55.938	30.598	1.00	25.71	B	C
ATOM	6453	CG	LEU	B	395	-48.757	55.404	29.158	1.00	26.08	B	C
ATOM	6454	CD1	LEU	B	395	-48.292	53.966	29.088	1.00	23.15	B	C
ATOM	6455	CD2	LEU	B	395	-50.111	55.523	28.522	1.00	25.01	B	C
ATOM	6456	C	LEU	B	395	-47.641	57.397	32.214	1.00	27.26	B	C
ATOM	6457	O	LEU	B	395	-47.443	58.492	31.684	1.00	27.40	B	O
ATOM	6458	N	HIS	B	396	-47.887	57.277	33.509	1.00	27.29	B	N
ATOM	6459	CB	HIS	B	396	-47.938	58.471	34.326	1.00	27.55	B	C
ATOM	6460	CB	HIS	B	396	-49.333	58.677	34.854	1.00	25.20	B	C
ATOM	6461	CG	HIS	B	396	-50.283	59.163	33.816	1.00	23.32	B	C
ATOM	6462	CD2	HIS	B	396	-50.624	58.655	32.609	1.00	21.94	B	C
ATOM	6463	ND1	HIS	B	396	-50.960	60.351	33.943	1.00	23.38	B	N
ATOM	6464	CE1	HIS	B	396	-51.679	60.559	32.852	1.00	23.24	B	C
ATOM	6465	NE2	HIS	B	396	-51.490	59.546	32.027	1.00	20.91	B	N
ATOM	6466	C	HIS	B	396	-46.975	58.458	35.458	1.00	29.82	B	C
ATOM	6467	O	HIS	B	396	-47.221	59.092	36.484	1.00	30.11	B	O
ATOM	6468	N	ASP	B	397	-45.865	57.753	35.277	1.00	31.84	B	N
ATOM	6469	CB	ASP	B	397	-44.893	57.700	36.341	1.00	34.60	B	C
ATOM	6470	CB	ASP	B	397	-43.686	56.861	35.969	1.00	36.60	B	C
ATOM	6471	CG	ASP	B	397	-42.635	56.873	37.060	1.00	40.95	B	C
ATOM	6472	OD1	ASP	B	397	-42.042	57.953	37.280	1.00	43.36	B	O
ATOM	6473	OD2	ASP	B	397	-42.414	55.822	37.716	1.00	42.73	B	O
ATOM	6474	C	ASP	B	397	-44.471	59.105	36.717	1.00	37.10	B	C
ATOM	6475	O	ASP	B	397	-44.138	59.934	35.875	1.00	37.38	B	O
ATOM	6476	N	ASN	B	398	-44.490	59.358	38.013	1.00	40.38	B	N
ATOM	6477	CB	ASN	B	398	-44.182	60.662	38.551	1.00	42.71	B	C
ATOM	6478	CB	ASN	B	398	-44.374	60.644	40.046	1.00	45.67	B	C
ATOM	6479	CG	ASN	B	398	-44.941	61.916	40.527	1.00	48.59	B	C
ATOM	6480	OD1	ASN	B	398	-44.570	62.986	40.027	1.00	51.96	B	O
ATOM	6481	ND2	ASN	B	398	-45.862	61.838	41.487	1.00	50.01	B	N
ATOM	6482	C	ASN	B	398	-42.831	61.252	38.275	1.00	43.00	B	C
ATOM	6483	O	ASN	B	398	-42.703	62.462	38.125	1.00	44.07	B	O
ATOM	6484	N	LYS	B	399	-41.818	60.402	38.251	1.00	43.47	B	N
ATOM	6485	CB	LYS	B	399	-40.457	60.848	38.026	1.00	44.09	B	C
ATOM	6486	CB	LYS	B	399	-39.478	59.905	38.713	1.00	45.90	B	C
ATOM	6487	CG	LYS	B	399	-39.318	60.119	40.189	1.00	48.97	B	C
ATOM	6488	CD	LYS	B	399	-38.106	59.350	40.693	1.00	54.83	B	C
ATOM	6489	CE	LYS	B	399	-38.362	57.835	40.825	1.00	58.21	B	C
ATOM	6490	NZ	LYS	B	399	-38.715	57.108	39.555	1.00	59.71	B	N
ATOM	6491	C	LYS	B	399	-40.082	60.960	36.560	1.00	43.59	B	C
ATOM	6492	O	LYS	B	399	-39.467	61.937	36.161	1.00	44.72	B	O
ATOM	6493	N	GLU	B	400	-40.431	59.954	35.763	1.00	42.23	B	N
ATOM	6494	CB	GLU	B	400	-40.109	59.983	34.340	1.00	40.78	B	C
ATOM	6495	CB	GLU	B	400	-40.484	58.669	33.671	1.00	40.94	B	C
ATOM	6496	CG	GLU	B	400	-40.140	58.624	32.199	1.00	43.63	B	C
ATOM	6497	CD	GLU	B	400	-38.676	58.357	31.946	1.00	45.59	B	C
ATOM	6498	OE1	GLU	B	400	-38.294	58.137	30.771	1.00	46.73	B	O
ATOM	6499	OE2	GLU	B	400	-37.904	58.362	32.927	1.00	46.25	B	O
ATOM	6500	C	GLU	B	400	-40.844	61.111	33.642	1.00	39.57	B	C
ATOM	6501	O	GLU	B	400	-40.399	61.604	32.607	1.00	39.03	B	O
ATOM	6502	N	PHE	B	401	-41.975	61.509	34.216	1.00	38.29	B	N
ATOM	6503	CB	PHE	B	401	-42.784	62.569	33.648	1.00	38.21	B	C
ATOM	6504	CB	PHE	B	401	-43.990	61.984	32.916	1.00	34.63	B	C
ATOM	6505	CG	PHE	B	401	-43.629	61.001	31.838	1.00	28.85	B	C
ATOM	6506	CD1	PHE	B	401	-43.742	59.633	32.058	1.00	27.04	B	C
ATOM	6507	CD2	PHE	B	401	-43.156	61.445	30.613	1.00	25.71	B	C
ATOM	6508	CE1	PHE	B	401	-43.386	58.727	31.069	1.00	24.62	B	C
ATOM	6509	CE2	PHE	B	401	-42.800	60.548	29.629	1.00	24.17	B	C
ATOM	6510	CZ	PHE	B	401	-42.915	59.187	29.856	1.00	23.08	B	C
ATOM	6511	C	PHE	B	401	-43.263	63.518	34.713	1.00	40.57	B	C
ATOM	6512	O	PHE	B	401	-44.352	63.351	35.245	1.00	42.37	B	O
ATOM	6513	N	PRO	B	402	-42.460	64.546	35.021	1.00	43.09	B	N
ATOM	6514	CD	PRO	B	402	-41.248	64.859	34.255	1.00	43.30	B	C
ATOM	6515	CB	PRO	B	402	-42.685	65.593	36.014	1.00	45.06	B	C
ATOM	6516	CB	PRO	B	402	-41.867	66.730	35.469	1.00	43.73	B	C
ATOM	6517	CG	PRO	B	402	-40.647	65.991	35.057	1.00	43.34	B	C
ATOM	6518	C	PRO	B	402	-44.113	65.990	36.370	1.00	47.45	B	C

Figure 1

ATOM	6519	O	PRO	B	402	-44.442	66.114	37.552	1.00	50.99	B	O
ATOM	6520	N	ASN	B	403	-44.968	66.215	35.390	1.00	47.48	B	N
ATOM	6521	CB	ASN	B	403	-46.345	66.539	35.724	1.00	48.17	B	C
ATOM	6522	CB	ASN	B	403	-46.638	68.002	35.475	1.00	51.95	B	C
ATOM	6523	CG	ASN	B	403	-45.857	68.900	36.399	1.00	55.27	B	C
ATOM	6524	OD1	ASN	B	403	-45.176	69.830	35.947	1.00	57.13	B	O
ATOM	6525	ND2	ASN	B	403	-45.947	68.635	37.705	1.00	55.98	B	N
ATOM	6526	C	ASN	B	403	-47.186	65.685	34.840	1.00	47.70	B	C
ATOM	6527	O	ASN	B	403	-47.717	66.145	33.828	1.00	49.21	B	O
ATOM	6528	N	PRO	B	404	-47.308	64.410	35.206	1.00	45.41	B	N
ATOM	6529	CD	PRO	B	404	-46.855	63.855	36.490	1.00	44.44	B	C
ATOM	6530	CB	PRO	B	404	-48.078	63.420	34.467	1.00	44.73	B	C
ATOM	6531	CB	PRO	B	404	-48.218	62.291	35.468	1.00	46.08	B	C
ATOM	6532	CG	PRO	B	404	-46.967	62.385	36.260	1.00	45.10	B	C
ATOM	6533	C	PRO	B	404	-49.432	63.874	33.957	1.00	44.81	B	C
ATOM	6534	O	PRO	B	404	-49.782	63.613	32.814	1.00	44.80	B	O
ATOM	6535	N	GLU	B	405	-50.201	64.540	34.806	1.00	45.08	B	N
ATOM	6536	CB	GLU	B	405	-51.531	64.966	34.420	1.00	45.94	B	C
ATOM	6537	CB	GLU	B	405	-52.340	65.343	35.655	1.00	50.24	B	C
ATOM	6538	CG	GLU	B	405	-52.371	64.246	36.734	1.00	56.29	B	C
ATOM	6539	CD	GLU	B	405	-52.648	62.867	36.162	1.00	57.58	B	C
ATOM	6540	OE1	GLU	B	405	-53.487	62.765	35.237	1.00	59.53	B	O
ATOM	6541	OE2	GLU	B	405	-52.029	61.892	36.642	1.00	57.78	B	O
ATOM	6542	C	GLU	B	405	-51.529	66.117	33.453	1.00	44.26	B	C
ATOM	6543	O	GLU	B	405	-52.578	66.653	33.115	1.00	45.69	B	O
ATOM	6544	N	MET	B	406	-50.351	66.473	32.965	1.00	15.00	B	N
ATOM	6545	CB	MET	B	406	-50.286	67.632	32.082	1.00	15.00	B	C
ATOM	6546	CB	MET	B	406	-49.386	68.711	32.686	1.00	15.00	B	C
ATOM	6547	CG	MET	B	406	-49.928	69.323	33.968	1.00	15.00	B	C
ATOM	6548	SD	MET	B	406	-51.428	70.288	33.697	1.00	15.00	B	S
ATOM	6549	CE	MET	B	406	-50.787	71.646	32.722	1.00	15.00	B	C
ATOM	6550	C	MET	B	406	-49.767	67.238	30.702	1.00	15.00	B	C
ATOM	6551	O	MET	B	406	-48.810	66.486	30.509	1.00	39.21	B	O
ATOM	6552	N	PHE	B	407	-50.435	67.802	29.679	1.00	36.59	B	N
ATOM	6553	CB	PHE	B	407	-50.057	67.544	28.303	1.00	33.99	B	C
ATOM	6554	CB	PHE	B	407	-51.205	67.915	27.370	1.00	31.78	B	C
ATOM	6555	CG	PHE	B	407	-50.998	67.466	25.973	1.00	29.39	B	C
ATOM	6556	CD1	PHE	B	407	-51.078	66.123	25.652	1.00	30.10	B	C
ATOM	6557	CD2	PHE	B	407	-50.679	68.370	24.979	1.00	29.45	B	C
ATOM	6558	CE1	PHE	B	407	-50.846	65.685	24.357	1.00	28.19	B	C
ATOM	6559	CE2	PHE	B	407	-50.442	67.947	23.677	1.00	26.69	B	C
ATOM	6560	CZ	PHE	B	407	-50.525	66.602	23.370	1.00	26.73	B	C
ATOM	6561	C	PHE	B	407	-48.821	68.365	27.957	1.00	33.36	B	C
ATOM	6562	O	PHE	B	407	-48.880	69.598	27.903	1.00	33.62	B	O
ATOM	6563	N	ASP	B	408	-47.700	67.685	27.725	1.00	34.15	B	N
ATOM	6564	CB	ASP	B	408	-46.458	68.380	27.393	1.00	34.39	B	C
ATOM	6565	CB	ASP	B	408	-45.720	68.767	28.673	1.00	36.91	B	C
ATOM	6566	CG	ASP	B	408	-44.469	69.578	28.402	1.00	39.65	B	C
ATOM	6567	OD1	ASP	B	408	-43.748	69.888	29.379	1.00	41.57	B	O
ATOM	6568	OD2	ASP	B	408	-44.212	69.906	27.219	1.00	40.48	B	O
ATOM	6569	C	ASP	B	408	-45.482	67.645	26.476	1.00	32.96	B	C
ATOM	6570	O	ASP	B	408	-44.734	66.777	26.928	1.00	30.59	B	O
ATOM	6571	N	PRO	B	409	-45.449	68.025	25.177	1.00	32.59	B	N
ATOM	6572	CD	PRO	B	409	-46.096	69.210	24.585	1.00	30.10	B	C
ATOM	6573	CB	PRO	B	409	-44.550	67.396	24.204	1.00	33.10	B	C
ATOM	6574	CB	PRO	B	409	-44.553	68.374	23.036	1.00	30.79	B	C
ATOM	6575	CG	PRO	B	409	-45.877	69.007	23.122	1.00	28.86	B	C
ATOM	6576	C	PRO	B	409	-43.151	67.262	24.768	1.00	34.11	B	C
ATOM	6577	O	PRO	B	409	-42.456	66.275	24.531	1.00	34.16	B	O
ATOM	6578	N	HIS	B	410	-42.727	68.265	25.519	1.00	34.36	B	N
ATOM	6579	CB	HIS	B	410	-41.386	68.211	26.044	1.00	35.21	B	C
ATOM	6580	CB	HIS	B	410	-41.058	69.506	26.785	1.00	35.58	B	C
ATOM	6581	CG	HIS	B	410	-41.038	70.699	25.884	1.00	35.15	B	C
ATOM	6582	CD2	HIS	B	410	-41.872	71.760	25.797	1.00	35.40	B	C
ATOM	6583	ND1	HIS	B	410	-40.172	70.807	24.817	1.00	35.21	B	N
ATOM	6584	CE1	HIS	B	410	-40.481	71.872	24.104	1.00	34.36	B	C
ATOM	6585	NE2	HIS	B	410	-41.512	72.467	24.676	1.00	35.70	B	N
ATOM	6586	C	HIS	B	410	-41.091	66.998	26.888	1.00	34.90	B	C
ATOM	6587	O	HIS	B	410	-39.935	66.774	27.248	1.00	36.78	B	O
ATOM	6588	N	HIS	B	411	-42.121	66.210	27.204	1.00	34.37	B	N
ATOM	6589	CB	HIS	B	411	-41.907	64.983	27.988	1.00	33.51	B	C
ATOM	6590	CB	HIS	B	411	-43.229	64.299	28.361	1.00	33.36	B	C
ATOM	6591	CG	HIS	B	411	-43.895	64.846	29.588	1.00	34.19	B	C
ATOM	6592	CD2	HIS	B	411	-45.208	65.031	29.868	1.00	34.60	B	C
ATOM	6593	ND1	HIS	B	411	-43.211	65.161	30.741	1.00	34.87	B	N

Figure 1

ATOM	6594	CE1	HIS	B	411	-44.071	65.515	31.682	1.00	34.81	B	C
ATOM	6595	NE2	HIS	B	411	-45.289	65.443	31.177	1.00	35.97	B	N
ATOM	6596	C	HIS	B	411	-41.092	64.010	27.121	1.00	32.36	B	C
ATOM	6597	O	HIS	B	411	-40.457	63.081	27.631	1.00	31.63	B	O
ATOM	6598	N	PHE	B	412	-41.127	64.221	25.806	1.00	30.97	B	N
ATOM	6599	CB	PHE	B	412	-40.394	63.366	24.888	1.00	31.12	B	C
ATOM	6600	CB	PHE	B	412	-41.364	62.575	23.975	1.00	27.98	B	C
ATOM	6601	CG	PHE	B	412	-42.275	61.645	24.725	1.00	23.26	B	C
ATOM	6602	CD1	PHE	B	412	-43.447	62.115	25.293	1.00	22.56	B	C
ATOM	6603	CD2	PHE	B	412	-41.916	60.317	24.939	1.00	21.86	B	C
ATOM	6604	CE1	PHE	B	412	-44.252	61.280	26.067	1.00	23.70	B	C
ATOM	6605	CE2	PHE	B	412	-42.710	59.471	25.710	1.00	21.30	B	C
ATOM	6606	CZ	PHE	B	412	-43.885	59.954	26.280	1.00	22.88	B	C
ATOM	6607	C	PHE	B	412	-39.396	64.160	24.049	1.00	33.25	B	C
ATOM	6608	O	PHE	B	412	-39.118	63.816	22.895	1.00	33.77	B	O
ATOM	6609	N	LEU	B	413	-38.864	65.231	24.632	1.00	35.15	B	N
ATOM	6610	CB	LEU	B	413	-37.857	66.063	23.970	1.00	37.01	B	C
ATOM	6611	CB	LEU	B	413	-38.483	67.310	23.341	1.00	32.56	B	C
ATOM	6612	CG	LEU	B	413	-39.421	67.102	22.152	1.00	31.71	B	C
ATOM	6613	CD1	LEU	B	413	-39.864	68.445	21.570	1.00	27.45	B	C
ATOM	6614	CD2	LEU	B	413	-38.735	66.259	21.092	1.00	30.78	B	C
ATOM	6615	C	LEU	B	413	-36.773	66.486	24.964	1.00	41.25	B	C
ATOM	6616	O	LEU	B	413	-37.054	66.765	26.146	1.00	43.43	B	O
ATOM	6617	N	ASP	B	414	-35.533	66.547	24.488	1.00	44.14	B	N
ATOM	6618	CB	ASP	B	414	-34.444	66.943	25.361	1.00	48.24	B	C
ATOM	6619	CB	ASP	B	414	-33.160	66.189	24.987	1.00	48.68	B	C
ATOM	6620	CG	ASP	B	414	-32.670	66.512	23.597	1.00	51.40	B	C
ATOM	6621	OD1	ASP	B	414	-31.823	65.753	23.071	1.00	52.91	B	O
ATOM	6622	OD2	ASP	B	414	-33.125	67.525	23.025	1.00	53.88	B	O
ATOM	6623	C	ASP	B	414	-34.255	68.459	25.321	1.00	51.52	B	C
ATOM	6624	O	ASP	B	414	-34.885	69.149	24.511	1.00	50.66	B	O
ATOM	6625	N	GLU	B	415	-33.415	68.980	26.220	1.00	55.28	B	N
ATOM	6626	CB	GLU	B	415	-33.157	70.422	26.296	1.00	56.26	B	C
ATOM	6627	CB	GLU	B	415	-32.134	70.719	27.399	1.00	60.24	B	C
ATOM	6628	CG	GLU	B	415	-32.129	72.175	27.938	1.00	66.98	B	C
ATOM	6629	CD	GLU	B	415	-33.430	72.581	28.674	1.00	70.27	B	C
ATOM	6630	OE1	GLU	B	415	-34.503	72.614	28.020	1.00	72.39	B	O
ATOM	6631	OE2	GLU	B	415	-33.372	72.870	29.906	1.00	71.02	B	O
ATOM	6632	C	GLU	B	415	-32.617	70.831	24.944	1.00	55.37	B	C
ATOM	6633	O	GLU	B	415	-32.933	71.903	24.430	1.00	53.76	B	O
ATOM	6634	N	GLY	B	416	-31.825	69.926	24.375	1.00	56.17	B	N
ATOM	6635	CB	GLY	B	416	-31.211	70.118	23.073	1.00	57.68	B	C
ATOM	6636	C	GLY	B	416	-32.178	70.518	21.983	1.00	57.35	B	C
ATOM	6637	O	GLY	B	416	-31.836	70.537	20.804	1.00	58.27	B	O
ATOM	6638	N	GLY	B	417	-33.395	70.848	22.373	1.00	57.30	B	N
ATOM	6639	CB	GLY	B	417	-34.354	71.263	21.382	1.00	57.49	B	C
ATOM	6640	C	GLY	B	417	-35.417	70.218	21.175	1.00	56.77	B	C
ATOM	6641	O	GLY	B	417	-36.268	69.996	22.033	1.00	57.35	B	O
ATOM	6642	N	ASN	B	418	-35.363	69.553	20.039	1.00	54.87	B	N
ATOM	6643	CB	ASN	B	418	-36.368	68.569	19.756	1.00	54.30	B	C
ATOM	6644	CB	ASN	B	418	-37.194	69.017	18.552	1.00	52.86	B	C
ATOM	6645	CG	ASN	B	418	-37.913	70.343	18.786	1.00	53.20	B	C
ATOM	6646	OD1	ASN	B	418	-37.830	70.943	19.870	1.00	53.46	B	O
ATOM	6647	ND2	ASN	B	418	-38.634	70.800	17.768	1.00	52.59	B	N
ATOM	6648	C	ASN	B	418	-35.712	67.238	19.480	1.00	55.10	B	C
ATOM	6649	O	ASN	B	418	-35.147	67.035	18.417	1.00	57.00	B	O
ATOM	6650	N	PHE	B	419	-35.759	66.325	20.439	1.00	54.14	B	N
ATOM	6651	CB	PHE	B	419	-35.159	65.031	20.204	1.00	52.23	B	C
ATOM	6652	CB	PHE	B	419	-33.683	65.073	20.575	1.00	55.91	B	C
ATOM	6653	CG	PHE	B	419	-32.880	66.016	19.737	1.00	58.64	B	C
ATOM	6654	CD1	PHE	B	419	-32.488	67.245	20.240	1.00	60.39	B	C
ATOM	6655	CD2	PHE	B	419	-32.533	65.681	18.433	1.00	60.43	B	C
ATOM	6656	CE1	PHE	B	419	-31.762	68.132	19.458	1.00	62.91	B	C
ATOM	6657	CE2	PHE	B	419	-31.809	66.560	17.644	1.00	62.07	B	C
ATOM	6658	CZ	PHE	B	419	-31.422	67.791	18.159	1.00	63.11	B	C
ATOM	6659	C	PHE	B	419	-35.872	63.938	20.975	1.00	49.46	B	C
ATOM	6660	O	PHE	B	419	-35.968	63.976	22.193	1.00	49.57	B	O
ATOM	6661	N	LYS	B	420	-36.372	62.945	20.261	1.00	46.00	B	N
ATOM	6662	CB	LYS	B	420	-37.089	61.871	20.929	1.00	43.52	B	C
ATOM	6663	CB	LYS	B	420	-37.497	60.788	19.927	1.00	36.54	B	C
ATOM	6664	CG	LYS	B	420	-38.774	61.092	19.171	1.00	29.16	B	C
ATOM	6665	CD	LYS	B	420	-39.984	61.353	20.088	1.00	23.37	B	C
ATOM	6666	CE	LYS	B	420	-40.176	60.314	21.156	1.00	17.15	B	C
ATOM	6667	NZ	LYS	B	420	-39.339	59.130	20.978	1.00	15.74	B	N
ATOM	6668	C	LYS	B	420	-36.309	61.206	22.066	1.00	44.10	B	C

Figure 1

ATOM	6669	O	LYS	B	420	-35.080	61.141	22.025	1.00	45.33	B	O
ATOM	6670	N	LYS	B	421	-37.038	60.697	23.060	1.00	42.46	B	N
ATOM	6671	CB	LYS	B	421	-36.425	60.007	24.167	1.00	41.92	B	C
ATOM	6672	CB	LYS	B	421	-36.353	60.964	25.357	1.00	43.82	B	C
ATOM	6673	CG	LYS	B	421	-35.637	62.301	25.042	1.00	42.14	B	C
ATOM	6674	CD	LYS	B	421	-35.887	63.348	26.120	1.00	43.52	B	C
ATOM	6675	CE	LYS	B	421	-35.736	62.780	27.517	1.00	43.94	B	C
ATOM	6676	NZ	LYS	B	421	-36.216	63.790	28.503	1.00	46.97	B	N
ATOM	6677	C	LYS	B	421	-37.235	58.752	24.505	1.00	41.39	B	C
ATOM	6678	O	LYS	B	421	-37.035	57.690	23.921	1.00	39.18	B	O
ATOM	6679	N	SER	B	422	-38.129	58.913	25.480	1.00	44.31	B	N
ATOM	6680	CB	SER	B	422	-39.074	57.903	26.009	1.00	45.78	B	C
ATOM	6681	CB	SER	B	422	-40.205	57.644	24.966	1.00	48.18	B	C
ATOM	6682	OG	SER	B	422	-39.998	56.497	24.152	1.00	47.92	B	O
ATOM	6683	C	SER	B	422	-38.499	56.577	26.510	1.00	43.60	B	C
ATOM	6684	O	SER	B	422	-37.354	56.252	26.213	1.00	45.23	B	O
ATOM	6685	N	LYS	B	423	-39.284	55.840	27.300	1.00	40.28	B	N
ATOM	6686	CB	LYS	B	423	-38.849	54.535	27.808	1.00	40.83	B	C
ATOM	6687	CB	LYS	B	423	-37.526	54.632	28.574	1.00	43.89	B	C
ATOM	6688	CG	LYS	B	423	-36.982	53.240	28.961	1.00	45.52	B	C
ATOM	6689	CD	LYS	B	423	-37.489	52.713	30.297	1.00	46.54	B	C
ATOM	6690	CE	LYS	B	423	-36.396	52.771	31.384	1.00	50.35	B	C
ATOM	6691	NZ	LYS	B	423	-35.638	51.488	31.656	1.00	52.30	B	N
ATOM	6692	C	LYS	B	423	-39.861	53.887	28.728	1.00	40.61	B	C
ATOM	6693	O	LYS	B	423	-39.873	52.666	28.920	1.00	40.70	B	O
ATOM	6694	N	TYR	B	424	-40.674	54.747	29.324	1.00	39.74	B	N
ATOM	6695	CB	TYR	B	424	-41.758	54.403	30.239	1.00	34.83	B	C
ATOM	6696	CB	TYR	B	424	-41.852	55.472	31.319	1.00	35.11	B	C
ATOM	6697	CG	TYR	B	424	-41.140	55.163	32.585	1.00	35.28	B	C
ATOM	6698	CD1	TYR	B	424	-41.854	54.809	33.719	1.00	37.09	B	C
ATOM	6699	CE1	TYR	B	424	-41.212	54.515	34.905	1.00	37.81	B	C
ATOM	6700	CD2	TYR	B	424	-39.761	55.219	32.660	1.00	35.33	B	C
ATOM	6701	CE2	TYR	B	424	-39.102	54.925	33.844	1.00	37.01	B	C
ATOM	6702	CZ	TYR	B	424	-39.834	54.575	34.967	1.00	37.93	B	C
ATOM	6703	OH	TYR	B	424	-39.201	54.295	36.151	1.00	37.86	B	O
ATOM	6704	C	TYR	B	424	-43.012	54.501	29.377	1.00	32.31	B	C
ATOM	6705	O	TYR	B	424	-44.094	54.754	29.884	1.00	33.78	B	O
ATOM	6706	N	PHE	B	425	-42.825	54.366	28.067	1.00	28.40	B	N
ATOM	6707	CB	PHE	B	425	-43.893	54.450	27.078	1.00	25.80	B	C
ATOM	6708	CB	PHE	B	425	-43.333	55.061	25.780	1.00	24.41	B	C
ATOM	6709	CG	PHE	B	425	-44.380	55.572	24.807	1.00	21.49	B	C
ATOM	6710	CD1	PHE	B	425	-45.119	56.713	25.104	1.00	20.11	B	C
ATOM	6711	CD2	PHE	B	425	-44.603	54.932	23.583	1.00	18.81	B	C
ATOM	6712	CE1	PHE	B	425	-46.069	57.216	24.204	1.00	19.00	B	C
ATOM	6713	CE2	PHE	B	425	-45.553	55.429	22.674	1.00	18.75	B	C
ATOM	6714	CZ	PHE	B	425	-46.287	56.572	22.988	1.00	18.83	B	C
ATOM	6715	C	PHE	B	425	-44.440	53.052	26.807	1.00	25.39	B	C
ATOM	6716	O	PHE	B	425	-43.849	52.291	26.058	1.00	25.85	B	O
ATOM	6717	N	MET	B	426	-45.559	52.712	27.438	1.00	26.01	B	N
ATOM	6718	CB	MET	B	426	-46.194	51.411	27.251	1.00	25.95	B	C
ATOM	6719	CB	MET	B	426	-46.055	50.574	28.506	1.00	25.03	B	C
ATOM	6720	CG	MET	B	426	-44.645	50.214	28.864	1.00	27.34	B	C
ATOM	6721	SD	MET	B	426	-44.689	49.128	30.294	1.00	31.46	B	S
ATOM	6722	CE	MET	B	426	-43.007	48.501	30.328	1.00	31.79	B	C
ATOM	6723	C	MET	B	426	-47.691	51.528	26.902	1.00	27.22	B	C
ATOM	6724	O	MET	B	426	-48.534	50.826	27.476	1.00	28.24	B	O
ATOM	6725	N	PRO	B	427	-48.049	52.435	25.979	1.00	26.64	B	N
ATOM	6726	CD	PRO	B	427	-47.307	53.459	25.233	1.00	26.04	B	C
ATOM	6727	CB	PRO	B	427	-49.462	52.511	25.667	1.00	26.08	B	C
ATOM	6728	CB	PRO	B	427	-49.530	53.707	24.735	1.00	25.46	B	C
ATOM	6729	CG	PRO	B	427	-48.200	53.707	24.071	1.00	24.59	B	C
ATOM	6730	C	PRO	B	427	-49.905	51.206	25.000	1.00	26.95	B	C
ATOM	6731	O	PRO	B	427	-51.008	50.724	25.236	1.00	27.72	B	O
ATOM	6732	N	PHE	B	428	-49.038	50.635	24.167	1.00	27.30	B	N
ATOM	6733	CB	PHE	B	428	-49.345	49.381	23.474	1.00	26.23	B	C
ATOM	6734	CB	PHE	B	428	-48.572	49.293	22.139	1.00	24.32	B	C
ATOM	6735	CG	PHE	B	428	-48.932	50.376	21.153	1.00	20.68	B	C
ATOM	6736	CD1	PHE	B	428	-48.316	51.610	21.194	1.00	18.91	B	C
ATOM	6737	CD2	PHE	B	428	-49.934	50.172	20.217	1.00	22.91	B	C
ATOM	6738	CE1	PHE	B	428	-48.689	52.633	20.319	1.00	19.20	B	C
ATOM	6739	CE2	PHE	B	428	-50.315	51.185	19.334	1.00	20.57	B	C
ATOM	6740	CZ	PHE	B	428	-49.691	52.416	19.390	1.00	19.26	B	C
ATOM	6741	C	PHE	B	428	-48.979	48.182	24.364	1.00	26.94	B	C
ATOM	6742	O	PHE	B	428	-48.939	47.038	23.905	1.00	28.66	B	O
ATOM	6743	N	SER	B	429	-48.760	48.449	25.648	1.00	26.15	B	N

Figure 1

ATOM	6744	CB	SER	B	429	-48.349	47.450	26.637	1.00	24.25	B	C
ATOM	6745	CB	SER	B	429	-49.258	46.235	26.651	1.00	25.14	B	C
ATOM	6746	OG	SER	B	429	-48.927	45.391	27.753	1.00	26.23	B	O
ATOM	6747	C	SER	B	429	-46.938	47.015	26.329	1.00	25.03	B	C
ATOM	6748	O	SER	B	429	-46.218	47.703	25.606	1.00	28.29	B	O
ATOM	6749	N	ALB	B	430	-46.548	45.867	26.868	1.00	25.12	B	N
ATOM	6750	CB	ALB	B	430	-45.197	45.316	26.712	1.00	23.22	B	C
ATOM	6751	CB	ALB	B	430	-44.302	45.871	27.788	1.00	20.30	B	C
ATOM	6752	C	ALB	B	430	-45.228	43.808	26.821	1.00	23.29	B	C
ATOM	6753	O	ALB	B	430	-46.225	43.234	27.252	1.00	26.79	B	O
ATOM	6754	N	GLY	B	431	-44.144	43.160	26.419	1.00	22.27	B	N
ATOM	6755	CB	GLY	B	431	-44.074	41.709	26.535	1.00	22.99	B	C
ATOM	6756	C	GLY	B	431	-44.563	40.854	25.382	1.00	23.72	B	C
ATOM	6757	O	GLY	B	431	-44.700	41.336	24.262	1.00	22.41	B	O
ATOM	6758	N	LYS	B	432	-44.836	39.578	25.677	1.00	25.42	B	N
ATOM	6759	CB	LYS	B	432	-45.291	38.595	24.678	1.00	26.31	B	C
ATOM	6760	CB	LYS	B	432	-45.345	37.189	25.280	1.00	26.29	B	C
ATOM	6761	CG	LYS	B	432	-44.095	36.712	25.979	1.00	31.08	B	C
ATOM	6762	CD	LYS	B	432	-42.919	36.577	25.025	1.00	36.76	B	C
ATOM	6763	CE	LYS	B	432	-41.619	36.217	25.749	1.00	38.87	B	C
ATOM	6764	NZ	LYS	B	432	-41.115	37.310	26.662	1.00	43.71	B	N
ATOM	6765	C	LYS	B	432	-46.672	38.894	24.111	1.00	27.10	B	C
ATOM	6766	O	LYS	B	432	-47.026	38.413	23.035	1.00	28.38	B	O
ATOM	6767	N	ARG	B	433	-47.446	39.672	24.856	1.00	27.86	B	N
ATOM	6768	CB	ARG	B	433	-48.806	40.029	24.483	1.00	27.41	B	C
ATOM	6769	CB	ARG	B	433	-49.721	39.875	25.702	1.00	27.50	B	C
ATOM	6770	CG	ARG	B	433	-50.136	38.441	25.999	1.00	27.54	B	C
ATOM	6771	CD	ARG	B	433	-51.272	37.997	25.102	1.00	26.49	B	C
ATOM	6772	NE	ARG	B	433	-51.700	36.626	25.400	1.00	26.00	B	N
ATOM	6773	C2	ARG	B	433	-52.800	36.058	24.906	1.00	26.34	B	C
ATOM	6774	NH1	ARG	B	433	-53.618	36.715	24.091	1.00	23.44	B	N
ATOM	6775	NH2	ARG	B	433	-53.073	34.810	25.208	1.00	27.30	B	N
ATOM	6776	C	ARG	B	433	-48.871	41.446	23.977	1.00	26.60	B	C
ATOM	6777	O	ARG	B	433	-49.947	42.030	23.872	1.00	28.79	B	O
ATOM	6778	N	ILE	B	434	-47.718	42.014	23.666	1.00	26.20	B	N
ATOM	6779	CB	ILE	B	434	-47.699	43.390	23.182	1.00	25.67	B	C
ATOM	6780	CB	ILE	B	434	-46.245	43.893	22.907	1.00	22.89	B	C
ATOM	6781	CG2	ILE	B	434	-45.563	43.087	21.840	1.00	21.04	B	C
ATOM	6782	CG1	ILE	B	434	-46.305	45.317	22.389	1.00	21.96	B	C
ATOM	6783	CD1	ILE	B	434	-45.187	46.150	22.872	1.00	20.46	B	C
ATOM	6784	C	ILE	B	434	-48.558	43.579	21.938	1.00	24.22	B	C
ATOM	6785	O	ILE	B	434	-48.592	42.736	21.056	1.00	23.88	B	O
ATOM	6786	N	CYS	B	435	-49.267	44.693	21.905	1.00	24.87	B	N
ATOM	6787	CB	CYS	B	435	-50.115	45.019	20.787	1.00	28.11	B	C
ATOM	6788	CB	CYS	B	435	-50.342	46.533	20.730	1.00	27.77	B	C
ATOM	6789	SG	CYS	B	435	-51.278	47.073	19.256	1.00	33.28	B	S
ATOM	6790	C	CYS	B	435	-49.474	44.535	19.486	1.00	27.75	B	C
ATOM	6791	O	CYS	B	435	-48.267	44.645	19.293	1.00	29.13	B	O
ATOM	6792	N	VAL	B	436	-50.304	43.983	18.615	1.00	27.07	B	N
ATOM	6793	CB	VAL	B	436	-49.876	43.464	17.340	1.00	26.13	B	C
ATOM	6794	CB	VAL	B	436	-50.872	42.419	16.854	1.00	27.40	B	C
ATOM	6795	CG1	VAL	B	436	-50.592	42.046	15.424	1.00	27.43	B	C
ATOM	6796	CG2	VAL	B	436	-50.821	41.201	17.754	1.00	27.30	B	C
ATOM	6797	C	VAL	B	436	-49.837	44.600	16.337	1.00	27.24	B	C
ATOM	6798	O	VAL	B	436	-49.093	44.572	15.349	1.00	29.06	B	O
ATOM	6799	N	GLY	B	437	-50.654	45.611	16.602	1.00	26.95	B	N
ATOM	6800	CB	GLY	B	437	-50.736	46.754	15.713	1.00	25.63	B	C
ATOM	6801	C	GLY	B	437	-49.951	47.941	16.213	1.00	25.25	B	C
ATOM	6802	O	GLY	B	437	-50.325	49.086	15.979	1.00	25.33	B	O
ATOM	6803	N	GLU	B	438	-48.861	47.668	16.915	1.00	24.74	B	N
ATOM	6804	CB	GLU	B	438	-48.034	48.739	17.424	1.00	24.84	B	C
ATOM	6805	CB	GLU	B	438	-46.899	48.173	18.244	1.00	25.64	B	C
ATOM	6806	CG	GLU	B	438	-46.108	49.224	18.946	1.00	29.03	B	C
ATOM	6807	CD	GLU	B	438	-44.929	48.617	19.688	1.00	31.59	B	C
ATOM	6808	OE1	GLU	B	438	-44.206	49.369	20.392	1.00	34.61	B	O
ATOM	6809	OE2	GLU	B	438	-44.733	47.384	19.565	1.00	29.23	B	O
ATOM	6810	C	GLU	B	438	-47.487	49.554	16.255	1.00	24.25	B	C
ATOM	6811	O	GLU	B	438	-47.498	50.774	16.290	1.00	25.24	B	O
ATOM	6812	N	ALB	B	439	-47.027	48.893	15.203	1.00	23.20	B	N
ATOM	6813	CB	ALB	B	439	-46.509	49.634	14.072	1.00	23.25	B	C
ATOM	6814	CB	ALB	B	439	-45.748	48.721	13.145	1.00	22.22	B	C
ATOM	6815	C	ALB	B	439	-47.622	50.335	13.305	1.00	25.34	B	C
ATOM	6816	O	ALB	B	439	-47.587	51.557	13.124	1.00	28.78	B	O
ATOM	6817	N	LEU	B	440	-48.600	49.560	12.840	1.00	25.62	B	N
ATOM	6818	CB	LEU	B	440	-49.728	50.094	12.069	1.00	24.03	B	C

Figure 1

ATOM	6819	CB	LEU	B	440	-50.773	49.009	11.805	1.00	23.43	B	C
ATOM	6820	CG	LEU	B	440	-52.132	49.456	11.256	1.00	21.87	B	C
ATOM	6821	CD1	LEU	B	440	-51.964	50.099	9.889	1.00	21.87	B	C
ATOM	6822	CD2	LEU	B	440	-53.047	48.259	11.160	1.00	22.15	B	C
ATOM	6823	C	LEU	B	440	-50.398	51.216	12.809	1.00	23.79	B	C
ATOM	6824	O	LEU	B	440	-50.829	52.188	12.223	1.00	23.59	B	O
ATOM	6825	N	ALB	B	441	-50.503	51.075	14.110	1.00	23.46	B	N
ATOM	6826	CB	ALB	B	441	-51.142	52.112	14.848	1.00	24.13	B	C
ATOM	6827	CB	ALB	B	441	-51.314	51.688	16.296	1.00	25.20	B	C
ATOM	6828	C	ALB	B	441	-50.284	53.343	14.759	1.00	24.60	B	C
ATOM	6829	O	ALB	B	441	-50.792	54.419	14.474	1.00	25.46	B	O
ATOM	6830	N	GLY	B	442	-48.985	53.190	15.011	1.00	24.78	B	N
ATOM	6831	CB	GLY	B	442	-48.080	54.334	14.982	1.00	24.59	B	C
ATOM	6832	C	GLY	B	442	-48.060	54.994	13.622	1.00	24.02	B	C
ATOM	6833	O	GLY	B	442	-47.919	56.206	13.480	1.00	25.31	B	O
ATOM	6834	N	MET	B	443	-48.223	54.160	12.613	1.00	24.75	B	N
ATOM	6835	CB	MET	B	443	-48.230	54.577	11.235	1.00	25.46	B	C
ATOM	6836	CB	MET	B	443	-48.188	53.340	10.355	1.00	28.41	B	C
ATOM	6837	CG	MET	B	443	-47.578	53.607	9.017	1.00	33.22	B	C
ATOM	6838	SD	MET	B	443	-47.518	52.170	7.914	1.00	41.26	B	S
ATOM	6839	CE	MET	B	443	-46.430	50.915	8.816	1.00	36.17	B	C
ATOM	6840	C	MET	B	443	-49.462	55.402	10.901	1.00	25.19	B	C
ATOM	6841	O	MET	B	443	-49.377	56.353	10.155	1.00	25.49	B	O
ATOM	6842	N	GLU	B	444	-50.612	55.055	11.459	1.00	26.73	B	N
ATOM	6843	CB	GLU	B	444	-51.834	55.784	11.144	1.00	27.79	B	C
ATOM	6844	CB	GLU	B	444	-53.056	54.959	11.514	1.00	28.33	B	C
ATOM	6845	CG	GLU	B	444	-53.141	53.593	10.910	1.00	33.19	B	C
ATOM	6846	CD	GLU	B	444	-54.405	52.910	11.326	1.00	37.10	B	C
ATOM	6847	OE1	GLU	B	444	-55.441	53.601	11.320	1.00	42.19	B	O
ATOM	6848	OE2	GLU	B	444	-54.385	51.703	11.652	1.00	38.63	B	O
ATOM	6849	C	GLU	B	444	-51.881	57.103	11.905	1.00	28.02	B	C
ATOM	6850	O	GLU	B	444	-52.287	58.128	11.360	1.00	29.38	B	O
ATOM	6851	N	LEU	B	445	-51.483	57.071	13.173	1.00	26.91	B	N
ATOM	6852	CB	LEU	B	445	-51.478	58.269	13.984	1.00	26.03	B	C
ATOM	6853	CB	LEU	B	445	-50.963	57.979	15.376	1.00	24.84	B	C
ATOM	6854	CG	LEU	B	445	-52.001	57.305	16.261	1.00	26.40	B	C
ATOM	6855	CD1	LEU	B	445	-51.385	56.896	17.598	1.00	23.95	B	C
ATOM	6856	CD2	LEU	B	445	-53.161	58.280	16.464	1.00	24.66	B	C
ATOM	6857	C	LEU	B	445	-50.591	59.294	13.340	1.00	25.99	B	C
ATOM	6858	O	LEU	B	445	-50.995	60.443	13.132	1.00	28.13	B	O
ATOM	6859	N	PHE	B	446	-49.375	58.881	13.012	1.00	24.19	B	N
ATOM	6860	CB	PHE	B	446	-48.417	59.788	12.407	1.00	21.97	B	C
ATOM	6861	CB	PHE	B	446	-47.061	59.110	12.228	1.00	20.59	B	C
ATOM	6862	CG	PHE	B	446	-46.035	59.997	11.584	1.00	18.18	B	C
ATOM	6863	CD1	PHE	B	446	-45.741	59.877	10.231	1.00	17.53	B	C
ATOM	6864	CD2	PHE	B	446	-45.374	60.977	12.328	1.00	15.18	B	C
ATOM	6865	CE1	PHE	B	446	-44.797	60.724	9.628	1.00	16.42	B	C
ATOM	6866	CE2	PHE	B	446	-44.442	61.813	11.733	1.00	14.16	B	C
ATOM	6867	CZ	PHE	B	446	-44.152	61.691	10.383	1.00	13.49	B	C
ATOM	6868	C	PHE	B	446	-48.882	60.314	11.074	1.00	21.47	B	C
ATOM	6869	O	PHE	B	446	-48.916	61.528	10.865	1.00	21.99	B	O
ATOM	6870	N	LEU	B	447	-49.233	59.390	10.181	1.00	19.85	B	N
ATOM	6871	CB	LEU	B	447	-49.694	59.707	8.838	1.00	18.25	B	C
ATOM	6872	CB	LEU	B	447	-49.801	58.418	7.991	1.00	17.10	B	C
ATOM	6873	CG	LEU	B	447	-48.482	57.733	7.582	1.00	18.05	B	C
ATOM	6874	CD1	LEU	B	447	-48.729	56.460	6.752	1.00	17.51	B	C
ATOM	6875	CD2	LEU	B	447	-47.643	58.696	6.818	1.00	16.62	B	C
ATOM	6876	C	LEU	B	447	-51.010	60.494	8.777	1.00	18.18	B	C
ATOM	6877	O	LEU	B	447	-51.150	61.365	7.931	1.00	18.00	B	O
ATOM	6878	N	PHE	B	448	-51.981	60.211	9.643	1.00	19.18	B	N
ATOM	6879	CB	PHE	B	448	-53.219	60.977	9.566	1.00	20.90	B	C
ATOM	6880	CB	PHE	B	448	-54.397	60.317	10.309	1.00	18.05	B	C
ATOM	6881	CG	PHE	B	448	-54.902	59.052	9.681	1.00	17.28	B	C
ATOM	6882	CD1	PHE	B	448	-54.413	58.606	8.472	1.00	17.20	B	C
ATOM	6883	CD2	PHE	B	448	-55.794	58.242	10.367	1.00	20.87	B	C
ATOM	6884	CE1	PHE	B	448	-54.779	57.366	7.952	1.00	16.45	B	C
ATOM	6885	CE2	PHE	B	448	-56.179	56.978	9.855	1.00	19.79	B	C
ATOM	6886	CZ	PHE	B	448	-55.661	56.549	8.645	1.00	18.83	B	C
ATOM	6887	C	PHE	B	448	-52.941	62.335	10.196	1.00	24.23	B	C
ATOM	6888	O	PHE	B	448	-52.980	63.361	9.521	1.00	25.03	B	O
ATOM	6889	N	LEU	B	449	-52.613	62.353	11.482	1.00	27.27	B	N
ATOM	6890	CB	LEU	B	449	-52.370	63.622	12.143	1.00	29.13	B	C
ATOM	6891	CB	LEU	B	449	-51.598	63.402	13.447	1.00	30.56	B	C
ATOM	6892	CG	LEU	B	449	-52.466	62.868	14.585	1.00	32.31	B	C
ATOM	6893	CD1	LEU	B	449	-51.605	62.673	15.820	1.00	32.19	B	C

Figure 1

ATOM	6894	CD2	LEU	B	449	-53.617	63.866	14.880	1.00	33.10	B	C
ATOM	6895	C	LEU	B	449	-51.623	64.599	11.253	1.00	28.98	B	C
ATOM	6896	O	LEU	B	449	-52.011	65.751	11.115	1.00	28.26	B	O
ATOM	6897	N	THR	B	450	-50.582	64.107	10.602	1.00	30.03	B	N
ATOM	6898	CB	THR	B	450	-49.730	64.935	9.768	1.00	30.53	B	C
ATOM	6899	CB	THR	B	450	-48.440	64.139	9.486	1.00	30.83	B	C
ATOM	6900	OG1	THR	B	450	-47.434	65.011	8.974	1.00	34.66	B	O
ATOM	6901	CG2	THR	B	450	-48.725	63.000	8.526	1.00	31.02	B	C
ATOM	6902	C	THR	B	450	-50.431	65.432	8.498	1.00	29.25	B	C
ATOM	6903	O	THR	B	450	-50.359	66.608	8.159	1.00	27.72	B	O
ATOM	6904	N	SER	B	451	-51.138	64.538	7.823	1.00	30.12	B	N
ATOM	6905	CB	SER	B	451	-51.876	64.898	6.620	1.00	30.44	B	C
ATOM	6906	CB	SER	B	451	-52.450	63.646	5.962	1.00	28.64	B	C
ATOM	6907	OG	SER	B	451	-51.429	62.692	5.729	1.00	28.87	B	O
ATOM	6908	C	SER	B	451	-53.019	65.852	6.964	1.00	32.16	B	C
ATOM	6909	O	SER	B	451	-53.388	66.707	6.165	1.00	33.03	B	O
ATOM	6910	N	ILE	B	452	-53.591	65.742	8.151	1.00	32.71	B	N
ATOM	6911	CB	ILE	B	452	-54.677	66.660	8.418	1.00	33.65	B	C
ATOM	6912	CB	ILE	B	452	-55.580	66.161	9.541	1.00	33.44	B	C
ATOM	6913	CG2	ILE	B	452	-55.545	64.648	9.606	1.00	31.19	B	C
ATOM	6914	CG1	ILE	B	452	-55.156	66.786	10.858	1.00	35.91	B	C
ATOM	6915	CD1	ILE	B	452	-56.053	67.917	11.293	1.00	37.38	B	C
ATOM	6916	C	ILE	B	452	-54.203	68.068	8.744	1.00	35.55	B	C
ATOM	6917	O	ILE	B	452	-54.883	69.035	8.421	1.00	36.47	B	O
ATOM	6918	N	LEU	B	453	-53.038	68.183	9.376	1.00	37.34	B	N
ATOM	6919	CB	LEU	B	453	-52.493	69.482	9.742	1.00	38.07	B	C
ATOM	6920	CB	LEU	B	453	-51.554	69.342	10.948	1.00	37.57	B	C
ATOM	6921	CG	LEU	B	453	-52.143	69.132	12.351	1.00	36.97	B	C
ATOM	6922	CD1	LEU	B	453	-51.021	68.878	13.355	1.00	36.61	B	C
ATOM	6923	CD2	LEU	B	453	-52.942	70.337	12.767	1.00	36.88	B	C
ATOM	6924	C	LEU	B	453	-51.742	70.105	8.570	1.00	38.53	B	C
ATOM	6925	O	LEU	B	453	-51.390	71.287	8.602	1.00	38.54	B	O
ATOM	6926	N	GLN	B	454	-51.481	69.306	7.542	1.00	37.97	B	N
ATOM	6927	CB	GLN	B	454	-50.781	69.821	6.381	1.00	38.91	B	C
ATOM	6928	CB	GLN	B	454	-50.088	68.699	5.617	1.00	35.81	B	C
ATOM	6929	CG	GLN	B	454	-49.422	69.141	4.340	1.00	34.13	B	C
ATOM	6930	CD	GLN	B	454	-48.972	67.962	3.502	1.00	36.28	B	C
ATOM	6931	OE1	GLN	B	454	-47.913	67.985	2.874	1.00	36.86	B	O
ATOM	6932	NE2	GLN	B	454	-49.785	66.920	3.483	1.00	37.55	B	N
ATOM	6933	C	GLN	B	454	-51.789	70.483	5.464	1.00	40.95	B	C
ATOM	6934	O	GLN	B	454	-51.457	71.397	4.718	1.00	43.10	B	O
ATOM	6935	N	ASN	B	455	-53.031	70.024	5.529	1.00	42.29	B	N
ATOM	6936	CB	ASN	B	455	-54.065	70.556	4.662	1.00	41.61	B	C
ATOM	6937	CB	ASN	B	455	-54.792	69.391	4.009	1.00	39.71	B	C
ATOM	6938	CG	ASN	B	455	-53.872	68.569	3.135	1.00	40.00	B	C
ATOM	6939	OD1	ASN	B	455	-53.637	68.908	1.987	1.00	43.17	B	O
ATOM	6940	ND2	ASN	B	455	-53.329	67.500	3.679	1.00	38.24	B	N
ATOM	6941	C	ASN	B	455	-55.044	71.493	5.335	1.00	42.70	B	C
ATOM	6942	O	ASN	B	455	-55.650	72.329	4.672	1.00	44.74	B	O
ATOM	6943	N	PHE	B	456	-55.187	71.375	6.650	1.00	42.92	B	N
ATOM	6944	CB	PHE	B	456	-56.116	72.227	7.371	1.00	43.43	B	C
ATOM	6945	CB	PHE	B	456	-57.364	71.442	7.755	1.00	42.60	B	C
ATOM	6946	CG	PHE	B	456	-57.933	70.622	6.642	1.00	41.05	B	C
ATOM	6947	CD1	PHE	B	456	-58.681	71.213	5.635	1.00	39.70	B	C
ATOM	6948	CD2	PHE	B	456	-57.717	69.251	6.599	1.00	39.82	B	C
ATOM	6949	CE1	PHE	B	456	-59.204	70.449	4.603	1.00	39.52	B	C
ATOM	6950	CE2	PHE	B	456	-58.234	68.481	5.574	1.00	39.13	B	C
ATOM	6951	CZ	PHE	B	456	-58.980	69.079	4.572	1.00	38.68	B	C
ATOM	6952	C	PHE	B	456	-55.559	72.836	8.642	1.00	45.04	B	C
ATOM	6953	O	PHE	B	456	-54.473	72.488	9.114	1.00	44.44	B	O
ATOM	6954	N	ASN	B	457	-56.306	73.771	9.137	1.00	15.00	B	N
ATOM	6955	CB	ASN	B	457	-56.105	74.434	10.419	1.00	15.00	B	C
ATOM	6956	CB	ASN	B	457	-55.913	75.939	10.216	1.00	15.00	B	C
ATOM	6957	CG	ASN	B	457	-54.571	76.278	9.599	1.00	15.00	B	C
ATOM	6958	OD1	ASN	B	457	-53.539	75.735	9.994	1.00	15.00	B	O
ATOM	6959	ND2	ASN	B	457	-54.578	77.183	8.628	1.00	15.00	B	N
ATOM	6960	C	ASN	B	457	-57.284	74.184	11.354	1.00	15.00	B	C
ATOM	6961	O	ASN	B	457	-58.405	74.327	10.853	1.00	50.60	B	O
ATOM	6962	N	LEU	B	458	-57.036	73.766	12.520	1.00	52.02	B	N
ATOM	6963	CB	LEU	B	458	-58.121	73.428	13.407	1.00	54.10	B	C
ATOM	6964	CB	LEU	B	458	-57.625	72.376	14.398	1.00	52.43	B	C
ATOM	6965	CG	LEU	B	458	-56.793	71.238	13.789	1.00	50.99	B	C
ATOM	6966	CD1	LEU	B	458	-56.370	70.283	14.898	1.00	50.86	B	C
ATOM	6967	CD2	LEU	B	458	-57.575	70.505	12.719	1.00	49.00	B	C
ATOM	6968	C	LEU	B	458	-58.725	74.620	14.148	1.00	56.41	B	C

94/514

Figure 1

ATOM	6969	O	LEU	B	458	-58.161	75.087	15.133	1.00	57.85	B	O
ATOM	6970	N	LYS	B	459	-59.872	75.126	13.667	1.00	15.00	B	N
ATOM	6971	CB	LYS	B	459	-60.530	76.227	14.357	1.00	15.00	B	C
ATOM	6972	CB	LYS	B	459	-61.187	77.169	13.346	1.00	15.00	B	C
ATOM	6973	CG	LYS	B	459	-60.201	77.975	12.516	1.00	15.00	B	C
ATOM	6974	CD	LYS	B	459	-60.921	78.905	11.553	1.00	15.00	B	C
ATOM	6975	CE	LYS	B	459	-59.935	79.709	10.722	1.00	15.00	B	C
ATOM	6976	NZ	LYS	B	459	-60.626	80.626	9.773	1.00	15.00	B	N
ATOM	6977	C	LYS	B	459	-61.578	75.711	15.338	1.00	15.00	B	C
ATOM	6978	O	LYS	B	459	-62.316	74.783	15.019	1.00	61.44	B	O
ATOM	6979	N	SER	B	460	-61.621	76.323	16.512	1.00	64.04	B	N
ATOM	6980	CB	SER	B	460	-62.562	75.943	17.565	1.00	66.10	B	C
ATOM	6981	CB	SER	B	460	-61.921	76.157	18.935	1.00	65.18	B	C
ATOM	6982	OG	SER	B	460	-62.802	75.767	19.971	1.00	65.17	B	O
ATOM	6983	C	SER	B	460	-63.858	76.742	17.495	1.00	68.11	B	C
ATOM	6984	O	SER	B	460	-63.947	77.730	16.771	1.00	68.86	B	O
ATOM	6985	N	LEU	B	461	-64.870	76.312	18.245	1.00	70.83	B	N
ATOM	6986	CB	LEU	B	461	-66.143	77.030	18.254	1.00	73.31	B	C
ATOM	6987	CB	LEU	B	461	-67.319	76.047	18.267	1.00	72.85	B	C
ATOM	6988	CG	LEU	B	461	-67.363	75.031	17.118	1.00	73.20	B	C
ATOM	6989	CD1	LEU	B	461	-68.626	74.175	17.222	1.00	73.51	B	C
ATOM	6990	CD2	LEU	B	461	-67.327	75.762	15.790	1.00	73.48	B	C
ATOM	6991	C	LEU	B	461	-66.192	77.944	19.474	1.00	74.86	B	C
ATOM	6992	O	LEU	B	461	-66.613	79.098	19.381	1.00	75.81	B	O
ATOM	6993	N	VAL	B	462	-65.747	77.431	20.616	1.00	76.31	B	N
ATOM	6994	CB	VAL	B	462	-65.723	78.219	21.839	1.00	78.64	B	C
ATOM	6995	CB	VAL	B	462	-66.297	77.419	23.034	1.00	79.03	B	C
ATOM	6996	CG1	VAL	B	462	-65.352	76.283	23.410	1.00	76.93	B	C
ATOM	6997	CG2	VAL	B	462	-66.531	78.352	24.222	1.00	79.18	B	C
ATOM	6998	C	VAL	B	462	-64.276	78.599	22.152	1.00	80.12	B	C
ATOM	6999	O	VAL	B	462	-63.349	78.061	21.556	1.00	80.84	B	O
ATOM	7000	N	ASP	B	463	-64.097	79.543	23.069	1.00	15.00	B	N
ATOM	7001	CB	ASP	B	463	-62.752	79.932	23.480	1.00	15.00	B	C
ATOM	7002	CB	ASP	B	463	-62.822	80.957	24.614	1.00	15.00	B	C
ATOM	7003	CG	ASP	B	463	-63.338	82.305	24.149	1.00	15.00	B	C
ATOM	7004	OD1	ASP	B	463	-63.083	82.671	22.984	1.00	15.00	B	O
ATOM	7005	OD2	ASP	B	463	-63.999	82.998	24.952	1.00	15.00	B	O
ATOM	7006	C	ASP	B	463	-61.947	78.718	23.930	1.00	15.00	B	C
ATOM	7007	O	ASP	B	463	-62.440	77.989	24.803	1.00	83.23	B	O
ATOM	7008	N	PRO	B	464	-60.785	78.470	23.346	1.00	82.35	B	N
ATOM	7009	CD	PRO	B	464	-60.147	79.159	22.211	1.00	82.04	B	C
ATOM	7010	CB	PRO	B	464	-59.989	77.309	23.756	1.00	82.19	B	C
ATOM	7011	CB	PRO	B	464	-58.656	77.552	23.061	1.00	81.60	B	C
ATOM	7012	CG	PRO	B	464	-59.088	78.157	21.771	1.00	81.26	B	C
ATOM	7013	C	PRO	B	464	-59.860	77.291	25.275	1.00	82.02	B	C
ATOM	7014	O	PRO	B	464	-59.712	76.237	25.891	1.00	81.65	B	O
ATOM	7015	N	LYS	B	465	-59.921	78.479	25.864	1.00	82.36	B	N
ATOM	7016	CB	LYS	B	465	-59.838	78.631	27.307	1.00	83.12	B	C
ATOM	7017	CB	LYS	B	465	-60.107	80.089	27.708	1.00	84.14	B	C
ATOM	7018	CG	LYS	B	465	-58.923	81.045	27.544	1.00	85.05	B	C
ATOM	7019	CD	LYS	B	465	-57.727	80.576	28.371	1.00	86.12	B	C
ATOM	7020	CE	LYS	B	465	-56.813	81.732	28.739	1.00	87.52	B	C
ATOM	7021	NZ	LYS	B	465	-57.485	82.688	29.674	1.00	88.59	B	N
ATOM	7022	C	LYS	B	465	-60.854	77.728	27.998	1.00	82.97	B	C
ATOM	7023	O	LYS	B	465	-60.696	77.397	29.175	1.00	83.47	B	O
ATOM	7024	N	ASN	B	466	-61.886	77.300	27.252	1.00	15.00	B	N
ATOM	7025	CB	ASN	B	466	-62.952	76.484	27.820	1.00	15.00	B	C
ATOM	7026	CB	ASN	B	466	-64.286	77.230	27.750	1.00	15.00	B	C
ATOM	7027	CG	ASN	B	466	-64.364	78.379	28.734	1.00	15.00	B	C
ATOM	7028	OD1	ASN	B	466	-63.975	78.246	29.894	1.00	15.00	B	O
ATOM	7029	ND2	ASN	B	466	-64.872	79.517	28.276	1.00	15.00	B	N
ATOM	7030	C	ASN	B	466	-63.066	75.149	27.091	1.00	15.00	B	C
ATOM	7031	O	ASN	B	466	-63.991	74.957	26.286	1.00	81.63	B	O
ATOM	7032	N	LEU	B	467	-62.210	74.182	27.406	1.00	79.45	B	N
ATOM	7033	CB	LEU	B	467	-62.272	72.871	26.768	1.00	78.10	B	C
ATOM	7034	CB	LEU	B	467	-61.365	72.863	25.531	1.00	76.11	B	C
ATOM	7035	CG	LEU	B	467	-61.876	73.555	24.265	1.00	73.56	B	C
ATOM	7036	CD1	LEU	B	467	-60.797	73.603	23.207	1.00	72.28	B	C
ATOM	7037	CD2	LEU	B	467	-63.077	72.805	23.745	1.00	72.42	B	C
ATOM	7038	C	LEU	B	467	-61.859	71.746	27.719	1.00	78.56	B	C
ATOM	7039	O	LEU	B	467	-60.956	71.996	28.545	1.00	79.49	B	O
ATOM	7040	OXT	LEU	B	467	-62.421	70.625	27.620	1.00	77.72	B	O
ATOM	7041	CB	THR	B	470	-62.432	66.742	31.537	1.00	70.95	B	C
ATOM	7042	OG1	THR	B	470	-62.248	65.967	32.726	1.00	70.86	B	O
ATOM	7043	CG2	THR	B	470	-63.848	66.508	31.003	1.00	71.45	B	C

Figure 1

ATOM	7044	C	THR	B	470	-61.493	64.812	30.312	1.00	70.71	B	C
ATOM	7045	O	THR	B	470	-62.558	64.290	29.969	1.00	69.89	B	O
ATOM	7046	N	THR	B	470	-61.525	67.064	29.205	1.00	70.82	B	N
ATOM	7047	CB	THR	B	470	-61.377	66.318	30.497	1.00	70.94	B	C
ATOM	7048	N	PRO	B	471	-60.396	64.086	30.556	1.00	71.07	B	N
ATOM	7049	CD	PRO	B	471	-59.061	64.573	30.945	1.00	70.66	B	C
ATOM	7050	CB	PRO	B	471	-60.394	62.629	30.404	1.00	71.75	B	C
ATOM	7051	CB	PRO	B	471	-58.967	62.243	30.798	1.00	71.17	B	C
ATOM	7052	CG	PRO	B	471	-58.173	63.471	30.435	1.00	70.30	B	C
ATOM	7053	C	PRO	B	471	-61.447	61.893	31.228	1.00	72.64	B	C
ATOM	7054	O	PRO	B	471	-61.625	62.160	32.425	1.00	72.94	B	O
ATOM	7055	N	VAL	B	472	-62.146	60.967	30.577	1.00	73.11	B	N
ATOM	7056	CB	VAL	B	472	-63.163	60.170	31.251	1.00	74.59	B	C
ATOM	7057	CB	VAL	B	472	-64.596	60.665	30.895	1.00	73.55	B	C
ATOM	7058	CG1	VAL	B	472	-64.739	62.122	31.284	1.00	73.73	B	C
ATOM	7059	CG2	VAL	B	472	-64.883	60.488	29.418	1.00	73.67	B	C
ATOM	7060	C	VAL	B	472	-63.013	58.677	30.929	1.00	75.91	B	C
ATOM	7061	O	VAL	B	472	-62.893	58.276	29.765	1.00	75.68	B	O
ATOM	7062	N	VAL	B	473	-62.997	57.858	31.979	1.00	77.60	B	N
ATOM	7063	CB	VAL	B	473	-62.845	56.417	31.812	1.00	79.17	B	C
ATOM	7064	CB	VAL	B	473	-62.300	55.749	33.091	1.00	79.35	B	C
ATOM	7065	CG1	VAL	B	473	-62.170	54.248	32.870	1.00	79.62	B	C
ATOM	7066	CG2	VAL	B	473	-60.954	56.345	33.455	1.00	78.93	B	C
ATOM	7067	C	VAL	B	473	-64.153	55.732	31.446	1.00	79.77	B	C
ATOM	7068	O	VAL	B	473	-64.946	55.365	32.319	1.00	79.64	B	O
ATOM	7069	N	ASN	B	474	-64.364	55.546	30.149	1.00	80.68	B	N
ATOM	7070	CB	ASN	B	474	-65.579	54.903	29.667	1.00	81.65	B	C
ATOM	7071	CB	ASN	B	474	-65.638	54.987	28.142	1.00	82.06	B	C
ATOM	7072	CG	ASN	B	474	-67.052	55.125	27.631	1.00	83.55	B	C
ATOM	7073	OD1	ASN	B	474	-67.311	54.993	26.430	1.00	84.28	B	O
ATOM	7074	ND2	ASN	B	474	-67.987	55.398	28.549	1.00	84.46	B	N
ATOM	7075	C	ASN	B	474	-65.637	53.433	30.110	1.00	81.45	B	C
ATOM	7076	O	ASN	B	474	-65.394	52.520	29.312	1.00	81.39	B	O
ATOM	7077	N	GLY	B	475	-65.959	53.209	31.380	1.00	80.40	B	N
ATOM	7078	CB	GLY	B	475	-66.023	51.852	31.880	1.00	79.03	B	C
ATOM	7079	C	GLY	B	475	-64.636	51.246	31.898	1.00	78.19	B	C
ATOM	7080	O	GLY	B	475	-63.820	51.574	32.764	1.00	78.06	B	O
ATOM	7081	N	PHE	B	476	-64.352	50.377	30.931	1.00	15.00	B	N
ATOM	7082	CB	PHE	B	476	-63.051	49.722	30.866	1.00	15.00	B	C
ATOM	7083	CB	PHE	B	476	-63.116	48.509	29.935	1.00	15.00	B	C
ATOM	7084	CG	PHE	B	476	-63.363	48.862	28.495	1.00	15.00	B	C
ATOM	7085	CD1	PHE	B	476	-62.304	49.126	27.641	1.00	15.00	B	C
ATOM	7086	CD2	PHE	B	476	-64.653	48.930	27.996	1.00	15.00	B	C
ATOM	7087	CE1	PHE	B	476	-62.527	49.452	26.317	1.00	15.00	B	C
ATOM	7088	CE2	PHE	B	476	-64.882	49.255	26.673	1.00	15.00	B	C
ATOM	7089	CZ	PHE	B	476	-63.818	49.515	25.833	1.00	15.00	B	C
ATOM	7090	C	PHE	B	476	-61.976	50.687	30.383	1.00	15.00	B	C
ATOM	7091	O	PHE	B	476	-61.067	51.051	31.147	1.00	75.02	B	O
ATOM	7092	N	ALB	B	477	-62.044	51.079	29.112	1.00	72.73	B	N
ATOM	7093	CB	ALB	B	477	-61.065	51.986	28.521	1.00	70.22	B	C
ATOM	7094	CB	ALB	B	477	-61.084	51.845	27.002	1.00	70.23	B	C
ATOM	7095	C	ALB	B	477	-61.328	53.447	28.920	1.00	68.40	B	C
ATOM	7096	O	ALB	B	477	-61.856	53.716	30.002	1.00	67.12	B	O
ATOM	7097	N	SER	B	478	-60.934	54.381	28.054	1.00	66.38	B	N
ATOM	7098	CB	SER	B	478	-61.135	55.811	28.292	1.00	64.51	B	C
ATOM	7099	CB	SER	B	478	-59.870	56.460	28.852	1.00	65.14	B	C
ATOM	7100	OG	SER	B	478	-59.556	55.950	30.135	1.00	67.68	B	O
ATOM	7101	C	SER	B	478	-61.518	56.513	26.993	1.00	62.38	B	C
ATOM	7102	O	SER	B	478	-61.283	55.990	25.896	1.00	62.65	B	O
ATOM	7103	N	VAL	B	479	-62.098	57.702	27.126	1.00	58.42	B	N
ATOM	7104	CB	VAL	B	479	-62.535	58.473	25.973	1.00	55.01	B	C
ATOM	7105	CB	VAL	B	479	-63.933	58.063	25.524	1.00	54.19	B	C
ATOM	7106	CG1	VAL	B	479	-63.916	56.648	24.998	1.00	53.72	B	C
ATOM	7107	CG2	VAL	B	479	-64.892	58.195	26.693	1.00	53.45	B	C
ATOM	7108	C	VAL	B	479	-62.607	59.943	26.319	1.00	53.16	B	C
ATOM	7109	O	VAL	B	479	-62.845	60.302	27.470	1.00	53.94	B	O
ATOM	7110	N	PRO	B	480	-62.408	60.813	25.318	1.00	50.40	B	N
ATOM	7111	CD	PRO	B	480	-62.000	60.473	23.940	1.00	48.44	B	C
ATOM	7112	CB	PRO	B	480	-62.451	62.265	25.497	1.00	47.37	B	C
ATOM	7113	CB	PRO	B	480	-61.656	62.765	24.300	1.00	46.21	B	C
ATOM	7114	CG	PRO	B	480	-62.079	61.811	23.235	1.00	46.36	B	C
ATOM	7115	C	PRO	B	480	-63.899	62.777	25.488	1.00	44.85	B	C
ATOM	7116	O	PRO	B	480	-64.834	62.009	25.227	1.00	43.82	B	O
ATOM	7117	N	PRO	B	481	-64.092	64.071	25.802	1.00	41.97	B	N
ATOM	7118	CD	PRO	B	481	-63.074	64.880	26.480	1.00	41.52	B	C

Figure 1

ATOM	7119	CB	PRO	B	481	-65.376	64.766	25.841	1.00	40.82	B	C
ATOM	7120	CB	PRO	B	481	-65.047	66.068	26.566	1.00	40.33	B	C
ATOM	7121	CG	PRO	B	481	-63.904	65.699	27.415	1.00	40.92	B	C
ATOM	7122	C	PRO	B	481	-65.840	65.050	24.417	1.00	40.26	B	C
ATOM	7123	O	PRO	B	481	-65.070	64.891	23.466	1.00	41.14	B	O
ATOM	7124	N	PHE	B	482	-67.094	65.471	24.284	1.00	38.33	B	N
ATOM	7125	CB	PHE	B	482	-67.651	65.815	22.993	1.00	36.65	B	C
ATOM	7126	CB	PHE	B	482	-69.170	65.836	23.062	1.00	34.94	B	C
ATOM	7127	CG	PHE	B	482	-69.815	66.435	21.853	1.00	33.41	B	C
ATOM	7128	CD1	PHE	B	482	-70.078	67.804	21.790	1.00	33.31	B	C
ATOM	7129	CD2	PHE	B	482	-70.112	65.643	20.755	1.00	30.54	B	C
ATOM	7130	CE1	PHE	B	482	-70.624	68.368	20.637	1.00	32.29	B	C
ATOM	7131	CE2	PHE	B	482	-70.654	66.197	19.605	1.00	30.15	B	C
ATOM	7132	CZ	PHE	B	482	-70.910	67.559	19.541	1.00	30.57	B	C
ATOM	7133	C	PHE	B	482	-67.146	67.198	22.638	1.00	36.97	B	C
ATOM	7134	O	PHE	B	482	-66.920	68.005	23.524	1.00	37.93	B	O
ATOM	7135	N	TYR	B	483	-66.960	67.469	21.351	1.00	37.53	B	N
ATOM	7136	CB	TYR	B	483	-66.497	68.777	20.921	1.00	38.43	B	C
ATOM	7137	CB	TYR	B	483	-65.058	69.021	21.413	1.00	39.48	B	C
ATOM	7138	CG	TYR	B	483	-63.981	68.409	20.538	1.00	40.38	B	C
ATOM	7139	CD1	TYR	B	483	-63.548	69.054	19.377	1.00	39.49	B	C
ATOM	7140	CE1	TYR	B	483	-62.646	68.449	18.508	1.00	39.39	B	C
ATOM	7141	CD2	TYR	B	483	-63.469	67.139	20.816	1.00	40.56	B	C
ATOM	7142	CE2	TYR	B	483	-62.571	66.526	19.955	1.00	39.33	B	C
ATOM	7143	CZ	TYR	B	483	-62.170	67.183	18.801	1.00	40.65	B	C
ATOM	7144	OH	TYR	B	483	-61.343	66.548	17.903	1.00	42.74	B	O
ATOM	7145	C	TYR	B	483	-66.575	68.854	19.402	1.00	39.29	B	C
ATOM	7146	O	TYR	B	483	-66.788	67.851	18.736	1.00	39.17	B	O
ATOM	7147	N	GLN	B	484	-66.405	70.049	18.858	1.00	41.65	B	N
ATOM	7148	CB	GLN	B	484	-66.473	70.245	17.418	1.00	44.75	B	C
ATOM	7149	CB	GLN	B	484	-67.825	70.841	17.023	1.00	47.39	B	C
ATOM	7150	CG	GLN	B	484	-69.031	70.330	17.770	1.00	52.06	B	C
ATOM	7151	CD	GLN	B	484	-70.280	71.135	17.443	1.00	53.65	B	C
ATOM	7152	OE1	GLN	B	484	-70.751	71.136	16.308	1.00	54.26	B	O
ATOM	7153	NE2	GLN	B	484	-70.815	71.832	18.442	1.00	54.88	B	N
ATOM	7154	C	GLN	B	484	-65.417	71.243	16.957	1.00	46.08	B	C
ATOM	7155	O	GLN	B	484	-65.022	72.147	17.698	1.00	46.05	B	O
ATOM	7156	N	LEU	B	485	-64.972	71.102	15.719	1.00	47.36	B	N
ATOM	7157	CB	LEU	B	485	-64.027	72.060	15.186	1.00	50.15	B	C
ATOM	7158	CB	LEU	B	485	-62.587	71.631	15.460	1.00	50.47	B	C
ATOM	7159	CG	LEU	B	485	-61.960	70.565	14.573	1.00	51.64	B	C
ATOM	7160	CD1	LEU	B	485	-60.472	70.814	14.557	1.00	51.79	B	C
ATOM	7161	CD2	LEU	B	485	-62.301	69.155	15.064	1.00	50.79	B	C
ATOM	7162	C	LEU	B	485	-64.279	72.188	13.687	1.00	52.36	B	C
ATOM	7163	O	LEU	B	485	-65.112	71.466	13.123	1.00	52.60	B	O
ATOM	7164	N	CYS	B	486	-63.557	73.102	13.046	1.00	53.48	B	N
ATOM	7165	CB	CYS	B	486	-63.717	73.325	11.616	1.00	53.93	B	C
ATOM	7166	CB	CYS	B	486	-64.259	74.733	11.376	1.00	55.12	B	C
ATOM	7167	SG	CYS	B	486	-65.633	75.136	12.468	1.00	58.63	B	S
ATOM	7168	C	CYS	B	486	-62.377	73.147	10.925	1.00	53.38	B	C
ATOM	7169	O	CYS	B	486	-61.396	73.793	11.286	1.00	53.56	B	O
ATOM	7170	N	PHE	B	487	-62.331	72.254	9.945	1.00	52.17	B	N
ATOM	7171	CB	PHE	B	487	-61.097	72.019	9.225	1.00	51.10	B	C
ATOM	7172	CB	PHE	B	487	-61.100	70.618	8.602	1.00	48.21	B	C
ATOM	7173	CG	PHE	B	487	-61.100	69.507	9.615	1.00	46.12	B	C
ATOM	7174	CD1	PHE	B	487	-62.217	69.262	10.401	1.00	45.45	B	C
ATOM	7175	CD2	PHE	B	487	-59.962	68.730	9.816	1.00	45.79	B	C
ATOM	7176	CE1	PHE	B	487	-62.206	68.258	11.375	1.00	44.49	B	C
ATOM	7177	CE2	PHE	B	487	-59.941	67.722	10.790	1.00	44.37	B	C
ATOM	7178	CZ	PHE	B	487	-61.064	67.490	11.569	1.00	43.64	B	C
ATOM	7179	C	PHE	B	487	-60.967	73.088	8.157	1.00	52.20	B	C
ATOM	7180	O	PHE	B	487	-61.478	72.939	7.047	1.00	53.59	B	O
ATOM	7181	N	ILE	B	488	-60.295	74.180	8.506	1.00	53.65	B	N
ATOM	7182	CB	ILE	B	488	-60.099	75.290	7.578	1.00	56.15	B	C
ATOM	7183	CB	ILE	B	488	-59.793	76.593	8.322	1.00	55.49	B	C
ATOM	7184	CG2	ILE	B	488	-59.685	77.734	7.338	1.00	55.84	B	C
ATOM	7185	CG1	ILE	B	488	-60.887	76.892	9.331	1.00	55.95	B	C
ATOM	7186	CD1	ILE	B	488	-60.576	78.101	10.169	1.00	56.88	B	C
ATOM	7187	C	ILE	B	488	-58.929	75.022	6.642	1.00	57.98	B	C
ATOM	7188	O	ILE	B	488	-57.829	74.716	7.096	1.00	58.25	B	O
ATOM	7189	N	PRO	B	489	-59.147	75.130	5.323	1.00	59.93	B	N
ATOM	7190	CD	PRO	B	489	-60.426	75.262	4.613	1.00	60.25	B	C
ATOM	7191	CB	PRO	B	489	-58.061	74.891	4.372	1.00	62.54	B	C
ATOM	7192	CB	PRO	B	489	-58.759	74.972	3.021	1.00	61.66	B	C
ATOM	7193	CG	PRO	B	489	-60.144	74.529	3.330	1.00	60.78	B	C

97/514

Figure 1

ATOM	7194	C	PRO	B	489	-56.969	75.949	4.505	1.00	65.24	B	C
ATOM	7195	O	PRO	B	489	-57.103	76.899	5.278	1.00	64.90	B	O
ATOM	7196	N	VAL	B	490	-55.911	75.787	3.744	1.00	15.00	B	N
ATOM	7197	CB	VAL	B	490	-54.800	76.730	3.781	1.00	15.00	B	C
ATOM	7198	CB	VAL	B	490	-53.708	76.267	4.766	1.00	15.00	B	C
ATOM	7199	CG1	VAL	B	490	-52.489	77.172	4.659	1.00	15.00	B	C
ATOM	7200	CG2	VAL	B	490	-54.248	76.262	6.187	1.00	15.00	B	C
ATOM	7201	C	VAL	B	490	-54.177	76.896	2.399	1.00	15.00	B	C
ATOM	7202	O	VAL	B	490	-54.011	75.903	1.685	1.00	77.97	B	O
ATOM	7203	N	HIS	B	491	-53.873	78.123	2.014	1.00	80.83	B	N
ATOM	7204	CB	HIS	B	491	-53.284	78.370	0.696	1.00	83.82	B	C
ATOM	7205	CB	HIS	B	491	-54.244	77.908	-0.406	1.00	86.47	B	C
ATOM	7206	CG	HIS	B	491	-53.558	77.514	-1.678	1.00	89.34	B	C
ATOM	7207	CD2	HIS	B	491	-53.507	78.115	-2.892	1.00	90.97	B	C
ATOM	7208	ND1	HIS	B	491	-52.808	76.364	-1.789	1.00	90.84	B	N
ATOM	7209	CE1	HIS	B	491	-52.324	76.271	-3.017	1.00	90.92	B	C
ATOM	7210	NE2	HIS	B	491	-52.734	77.321	-3.706	1.00	91.43	B	N
ATOM	7211	C	HIS	B	491	-52.964	79.850	0.491	1.00	84.02	B	C
ATOM	7212	O	HIS	B	491	-53.175	80.639	1.441	1.00	83.96	B	O
ATOM	7213	OXT	HIS	B	491	-52.523	80.197	-0.627	1.00	83.06	B	O
ATOM	7214	FE1	HEM	B	501	-53.854	46.932	19.898	1.00	23.53	B	F
ATOM	7215	N2	HEM	B	501	-53.556	46.521	21.963	1.00	5.13	B	N
ATOM	7216	N3	HEM	B	501	-54.157	48.976	20.277	1.00	2.23	B	N
ATOM	7217	N4	HEM	B	501	-54.304	47.223	17.772	1.00	9.11	B	N
ATOM	7218	N5	HEM	B	501	-54.203	44.734	19.542	1.00	6.04	B	N
ATOM	7219	C6	HEM	B	501	-53.511	45.320	22.577	1.00	8.09	B	C
ATOM	7220	C7	HEM	B	501	-53.172	45.528	23.986	1.00	9.05	B	C
ATOM	7221	C8	HEM	B	501	-53.028	46.855	24.193	1.00	6.44	B	C
ATOM	7222	C9	HEM	B	501	-53.292	47.580	22.935	1.00	5.45	B	C
ATOM	7223	C10	HEM	B	501	-53.665	49.632	21.405	1.00	3.49	B	C
ATOM	7224	C11	HEM	B	501	-53.656	51.093	21.106	1.00	1.28	B	C
ATOM	7225	C12	HEM	B	501	-53.895	51.293	19.800	1.00	1.82	B	C
ATOM	7226	C13	HEM	B	501	-54.155	49.948	19.158	1.00	3.62	B	C
ATOM	7227	C14	HEM	B	501	-54.300	48.398	17.126	1.00	8.99	B	C
ATOM	7228	C15	HEM	B	501	-54.390	48.152	15.666	1.00	10.03	B	C
ATOM	7229	C16	HEM	B	501	-54.578	46.802	15.494	1.00	12.02	B	C
ATOM	7230	C17	HEM	B	501	-54.518	46.150	16.826	1.00	11.41	B	C
ATOM	7231	C18	HEM	B	501	-54.506	44.096	18.395	1.00	8.52	B	C
ATOM	7232	C19	HEM	B	501	-54.617	42.646	18.677	1.00	7.61	B	C
ATOM	7233	C20	HEM	B	501	-54.271	42.451	19.969	1.00	10.04	B	C
ATOM	7234	C21	HEM	B	501	-54.051	43.772	20.606	1.00	5.94	B	C
ATOM	7235	C22	HEM	B	501	-53.776	43.995	21.904	1.00	5.96	B	C
ATOM	7236	C23	HEM	B	501	-53.285	48.975	22.714	1.00	3.48	B	C
ATOM	7237	C24	HEM	B	501	-54.227	49.685	17.797	1.00	6.77	B	C
ATOM	7238	C25	HEM	B	501	-54.674	44.819	17.062	1.00	11.27	B	C
ATOM	7239	C26	HEM	B	501	-52.927	47.625	25.496	1.00	4.02	B	C
ATOM	7240	C27	HEM	B	501	-52.784	44.295	24.823	1.00	13.87	B	C
ATOM	7241	C28	HEM	B	501	-52.735	44.275	26.348	1.00	21.34	B	C
ATOM	7242	C29	HEM	B	501	-51.903	43.044	26.787	1.00	23.77	B	C
ATOM	7243	O30	HEM	B	501	-52.684	41.969	27.061	1.00	28.61	B	O
ATOM	7244	O31	HEM	B	501	-50.749	43.021	26.804	1.00	23.82	B	O
ATOM	7245	C32	HEM	B	501	-53.075	52.080	22.086	1.00	1.81	B	C
ATOM	7246	C33	HEM	B	501	-54.234	52.502	19.030	1.00	2.16	B	C
ATOM	7247	C34	HEM	B	501	-53.269	53.667	19.239	1.00	5.15	B	C
ATOM	7248	C35	HEM	B	501	-54.556	49.259	14.656	1.00	11.14	B	C
ATOM	7249	C36	HEM	B	501	-54.525	45.903	14.268	1.00	12.94	B	C
ATOM	7250	C37	HEM	B	501	-53.208	45.739	13.515	1.00	16.82	B	C
ATOM	7251	C38	HEM	B	501	-54.841	41.577	17.602	1.00	4.37	B	C
ATOM	7252	C39	HEM	B	501	-54.252	41.145	20.764	1.00	11.58	B	C
ATOM	7253	C40	HEM	B	501	-52.908	40.854	21.395	1.00	18.63	B	C
ATOM	7254	C41	HEM	B	501	-52.833	39.464	21.980	1.00	22.42	B	C
ATOM	7255	O42	HEM	B	501	-52.250	38.587	21.476	1.00	28.62	B	O
ATOM	7256	O43	HEM	B	501	-53.498	39.364	23.132	1.00	24.93	B	O
END												

98/514

Figure 2
Table 2

ATOM	1	N	PRO A	30	6.948	61.863	48.650	1.00	51.63	N
ATOM	2	CA	PRO A	30	8.378	62.312	48.212	1.00	51.17	C
ATOM	3	CB	PRO A	30	8.357	62.494	46.718	1.00	49.42	C
ATOM	4	CG	PRO A	30	7.371	61.385	46.239	1.00	48.87	C
ATOM	5	CD	PRO A	30	6.309	61.240	47.441	1.00	56.68	C
ATOM	6	C	PRO A	30	8.547	63.566	48.834	1.00	51.07	C
ATOM	7	O	PRO A	30	7.704	64.397	48.582	1.00	55.74	O
ATOM	8	N	PRO A	31	9.593	63.742	49.559	1.00	45.95	N
ATOM	9	CA	PRO A	31	9.787	64.843	50.414	1.00	44.40	C
ATOM	10	CB	PRO A	31	11.142	64.525	51.103	1.00	44.35	C
ATOM	11	CG	PRO A	31	11.903	63.627	50.147	1.00	48.33	C
ATOM	12	CD	PRO A	31	10.722	62.808	49.492	1.00	47.79	C
ATOM	13	C	PRO A	31	9.844	66.064	49.703	1.00	47.01	C
ATOM	14	O	PRO A	31	9.781	65.886	48.565	1.00	51.96	O
ATOM	15	N	GLY A	32	10.050	67.260	50.325	1.00	47.17	N
ATOM	16	CA	GLY A	32	10.114	68.541	49.674	1.00	46.74	C
ATOM	17	C	GLY A	32	9.811	69.667	50.679	1.00	47.51	C
ATOM	18	O	GLY A	32	9.358	69.460	51.703	1.00	44.93	O
ATOM	19	N	PRO A	33	10.017	70.897	50.374	1.00	46.55	N
ATOM	20	CA	PRO A	33	9.649	71.893	51.343	1.00	47.81	C
ATOM	21	CB	PRO A	33	10.087	73.270	50.709	1.00	46.05	C
ATOM	22	CG	PRO A	33	10.114	72.947	49.269	1.00	48.72	C
ATOM	23	CD	PRO A	33	10.395	71.467	49.108	1.00	46.27	C
ATOM	24	C	PRO A	33	8.183	71.924	51.434	1.00	47.04	C
ATOM	25	O	PRO A	33	7.651	71.646	50.501	1.00	50.34	O
ATOM	26	N	THR A	34	7.666	72.264	52.571	1.00	50.85	N
ATOM	27	CA	THR A	34	6.320	72.461	52.994	1.00	50.67	C
ATOM	28	CB	THR A	34	6.140	72.799	54.512	1.00	54.10	C
ATOM	29	OG1	THR A	34	7.468	72.614	55.097	1.00	60.49	O
ATOM	30	CG2	THR A	34	5.107	71.751	55.275	1.00	54.94	C
ATOM	31	C	THR A	34	5.944	73.893	52.409	1.00	50.51	C
ATOM	32	O	THR A	34	6.632	74.962	52.731	1.00	45.73	O
ATOM	33	N	PRO A	35	4.868	73.889	51.637	1.00	47.05	N
ATOM	34	CA	PRO A	35	4.318	74.984	50.882	1.00	50.41	C
ATOM	35	CB	PRO A	35	3.607	74.239	49.816	1.00	52.81	C
ATOM	36	CG	PRO A	35	3.239	72.981	50.564	1.00	49.09	C
ATOM	37	CD	PRO A	35	4.200	72.638	51.451	1.00	43.28	C
ATOM	38	C	PRO A	35	3.280	75.813	51.615	1.00	56.80	C
ATOM	39	O	PRO A	35	2.519	75.307	52.436	1.00	59.32	O
ATOM	40	N	LEU A	36	3.180	77.090	51.283	1.00	58.99	N
ATOM	41	CA	LEU A	36	2.318	78.017	52.022	1.00	58.69	C
ATOM	42	CB	LEU A	36	2.792	79.431	51.779	1.00	56.84	C
ATOM	43	CG	LEU A	36	3.929	79.638	52.719	1.00	50.04	C
ATOM	44	CD1	LEU A	36	4.293	81.192	52.640	1.00	46.53	C
ATOM	45	CD2	LEU A	36	3.671	79.172	54.069	1.00	46.56	C
ATOM	46	C	LEU A	36	0.984	77.953	51.451	1.00	61.55	C
ATOM	47	O	LEU A	36	0.870	77.456	50.292	1.00	67.28	O
ATOM	48	N	PRO A	37	0.004	78.480	52.157	1.00	61.50	N
ATOM	49	CA	PRO A	37	-1.416	78.376	51.816	1.00	62.40	C
ATOM	50	CB	PRO A	37	-2.013	79.374	52.718	1.00	64.55	C
ATOM	51	CG	PRO A	37	-1.225	79.220	53.849	1.00	66.39	C
ATOM	52	CD	PRO A	37	0.190	79.179	53.435	1.00	62.21	C
ATOM	53	C	PRO A	37	-1.819	78.683	50.451	1.00	61.93	C
ATOM	54	O	PRO A	37	-2.634	78.005	49.846	1.00	66.62	O
ATOM	55	N	VAL A	38	-1.374	79.684	49.839	1.00	59.79	N
ATOM	56	CA	VAL A	38	-1.917	79.670	48.449	1.00	59.03	C
ATOM	57	CB	VAL A	38	-3.092	80.722	48.272	1.00	59.04	C
ATOM	58	CG1	VAL A	38	-2.655	82.075	48.712	1.00	64.14	C
ATOM	59	CG2	VAL A	38	-3.511	81.004	46.779	1.00	60.19	C
ATOM	60	C	VAL A	38	-0.741	79.981	47.423	1.00	57.97	C
ATOM	61	O	VAL A	38	-0.963	79.761	46.135	1.00	57.04	O
ATOM	62	N	ILE A	39	0.460	80.408	47.986	1.00	55.15	N
ATOM	63	CA	ILE A	39	1.668	80.753	47.238	1.00	52.25	C
ATOM	64	CB	ILE A	39	2.340	81.759	47.832	1.00	52.00	C
ATOM	65	CG1	ILE A	39	2.632	81.428	49.306	1.00	51.20	C
ATOM	66	CD1	ILE A	39	3.442	82.649	50.013	1.00	46.31	C
ATOM	67	CG2	ILE A	39	1.628	83.038	47.634	1.00	48.60	C
ATOM	68	C	ILE A	39	2.617	79.538	46.999	1.00	53.36	C
ATOM	69	O	ILE A	39	3.759	79.640	46.590	1.00	51.05	O
ATOM	70	N	GLY A	40	2.074	78.334	47.237	1.00	52.77	N
ATOM	71	CA	GLY A	40	2.877	77.195	46.897	1.00	51.64	C
ATOM	72	C	GLY A	40	4.227	77.256	47.507	1.00	47.40	C
ATOM	73	O	GLY A	40	4.266	77.624	48.720	1.00	47.65	O
ATOM	74	N	ASN A	41	5.282	76.847	46.713	1.00	43.40	N

Figure 2

[illegible][illegible]

100/514

Figure 2

ATOM	151	O	ILE	A	50	15.157	76.517	39.745	1.00	49.83	O
ATOM	152	N	SER	A	51	15.751	76.991	37.650	1.00	48.20	N
ATOM	153	CA	SER	A	51	16.484	75.831	37.698	1.00	48.44	C
ATOM	154	CB	SER	A	51	17.155	75.565	36.399	1.00	52.80	C
ATOM	155	OG	SER	A	51	17.967	74.300	36.427	1.00	46.27	O
ATOM	156	C	SER	A	51	17.563	75.778	38.712	1.00	51.75	C
ATOM	157	O	SER	A	51	17.927	74.622	39.247	1.00	50.48	O
ATOM	158	N	LYS	A	52	18.116	76.941	39.105	1.00	51.90	N
ATOM	159	CA	LYS	A	52	19.167	76.875	40.165	1.00	52.23	C
ATOM	160	CB	LYS	A	52	19.803	78.162	40.272	1.00	56.15	C
ATOM	161	CG	LYS	A	52	21.292	78.174	40.787	1.00	66.01	C
ATOM	162	CD	LYS	A	52	22.458	77.775	39.652	1.00	70.39	C
ATOM	163	CE	LYS	A	52	22.773	78.875	38.593	1.00	70.21	C
ATOM	164	NZ	LYS	A	52	24.069	78.711	37.871	1.00	82.42	N
ATOM	165	C	LYS	A	52	18.495	76.636	41.594	1.00	53.36	C
ATOM	166	O	LYS	A	52	19.019	75.984	42.513	1.00	56.96	O
ATOM	167	N	SER	A	53	17.297	77.056	41.786	1.00	47.99	N
ATOM	168	CA	SER	A	53	16.697	76.727	42.963	1.00	45.84	C
ATOM	169	CB	SER	A	53	15.363	77.413	43.000	1.00	44.84	C
ATOM	170	OG	SER	A	53	15.640	78.766	42.998	1.00	53.83	O
ATOM	171	C	SER	A	53	16.513	75.249	43.044	1.00	45.50	C
ATOM	172	O	SER	A	53	16.617	74.612	44.105	1.00	45.01	O
ATOM	173	N	LEU	A	54	16.132	74.601	41.961	1.00	45.21	N
ATOM	174	CA	LEU	A	54	16.002	73.120	42.082	1.00	43.84	C
ATOM	175	CB	LEU	A	54	15.596	72.714	40.778	1.00	41.31	C
ATOM	176	CG	LEU	A	54	14.245	73.022	40.315	1.00	41.32	C
ATOM	177	CD1	LEU	A	54	14.297	72.210	38.955	1.00	41.46	C
ATOM	178	CD2	LEU	A	54	13.009	72.393	41.126	1.00	40.27	C
ATOM	179	C	LEU	A	54	17.375	72.369	42.560	1.00	43.71	C
ATOM	180	O	LEU	A	54	17.449	71.404	43.187	1.00	44.07	O
ATOM	181	N	THR	A	55	18.488	72.933	42.280	1.00	43.30	N
ATOM	182	CA	THR	A	55	19.678	72.278	42.643	1.00	42.87	C
ATOM	183	CB	THR	A	55	20.971	72.881	41.817	1.00	40.16	C
ATOM	184	OG1	THR	A	55	20.816	72.637	40.326	1.00	45.23	O
ATOM	185	CG2	THR	A	55	22.107	72.163	42.196	1.00	35.96	C
ATOM	186	C	THR	A	55	19.823	72.374	44.128	1.00	41.51	C
ATOM	187	O	THR	A	55	19.985	71.375	44.795	1.00	44.31	O
ATOM	188	N	ASN	A	56	19.868	73.603	44.624	1.00	40.63	N
ATOM	189	CA	ASN	A	56	19.898	73.980	46.013	1.00	34.75	C
ATOM	190	CB	ASN	A	56	19.547	75.423	46.067	1.00	34.48	C
ATOM	191	CG	ASN	A	56	20.744	76.338	45.698	1.00	36.13	C
ATOM	192	OD1	ASN	A	56	21.875	75.840	45.500	1.00	39.61	O
ATOM	193	ND2	ASN	A	56	20.501	77.663	45.591	1.00	29.29	N
ATOM	194	C	ASN	A	56	18.785	73.081	46.700	1.00	34.36	C
ATOM	195	O	ASN	A	56	18.993	72.171	47.498	1.00	34.45	O
ATOM	196	N	LEU	A	57	17.591	73.155	46.308	1.00	31.97	N
ATOM	197	CA	LEU	A	57	16.707	72.209	46.917	1.00	31.71	C
ATOM	198	CB	LEU	A	57	15.331	72.248	46.353	1.00	33.83	C
ATOM	199	CG	LEU	A	57	14.462	73.523	46.630	1.00	36.13	C
ATOM	200	CD1	LEU	A	57	13.305	73.497	45.620	1.00	42.55	C
ATOM	201	CD2	LEU	A	57	13.944	73.445	48.027	1.00	38.64	C
ATOM	202	C	LEU	A	57	17.147	70.811	46.940	1.00	33.08	C
ATOM	203	O	LEU	A	57	16.903	70.116	47.912	1.00	35.13	O
ATOM	204	N	SER	A	58	17.784	70.300	45.886	1.00	36.21	N
ATOM	205	CA	SER	A	58	18.166	68.850	45.914	1.00	34.71	C
ATOM	206	CB	SER	A	58	18.698	68.361	44.594	1.00	36.52	C
ATOM	207	OG	SER	A	58	19.806	69.050	44.229	1.00	30.72	O
ATOM	208	C	SER	A	58	19.197	68.596	46.916	1.00	34.96	C
ATOM	209	O	SER	A	58	19.286	67.500	47.456	1.00	29.82	O
ATOM	210	N	LYS	A	59	19.972	69.617	47.187	1.00	35.06	N
ATOM	211	CA	LYS	A	59	21.054	69.385	48.177	1.00	36.79	C
ATOM	212	CB	LYS	A	59	21.867	70.636	48.222	1.00	38.03	C
ATOM	213	CG	LYS	A	59	23.169	70.663	47.768	1.00	43.50	C
ATOM	214	CD	LYS	A	59	23.388	70.488	46.322	1.00	59.74	C
ATOM	215	CE	LYS	A	59	24.861	71.105	45.821	1.00	64.36	C
ATOM	216	NZ	LYS	A	59	24.956	72.649	46.483	1.00	58.10	N
ATOM	217	C	LYS	A	59	20.343	69.212	49.544	1.00	39.23	C
ATOM	218	O	LYS	A	59	20.939	68.736	50.439	1.00	39.75	O
ATOM	219	N	VAL	A	60	19.017	69.628	49.754	1.00	39.50	N
ATOM	220	CA	VAL	A	60	18.400	69.271	51.023	1.00	33.52	C
ATOM	221	CB	VAL	A	60	17.903	70.251	51.675	1.00	34.28	C
ATOM	222	CG1	VAL	A	60	18.294	71.567	51.107	1.00	36.85	C
ATOM	223	CG2	VAL	A	60	16.431	70.112	51.858	1.00	37.83	C
ATOM	224	C	VAL	A	60	17.327	68.255	50.834	1.00	34.23	C
ATOM	225	O	VAL	A	60	17.131	67.440	51.739	1.00	30.21	O
ATOM	226	N	TYR	A	61	16.689	68.092	49.704	1.00	31.83	N

101/514

Figure 2

ATOM	227	CA	TYR	A	61	15.749	66.984	49.761	1.00	31.92	C
ATOM	228	CB	TYR	A	61	14.317	67.422	49.324	1.00	32.86	C
ATOM	229	CG	TYR	A	61	13.861	68.556	50.160	1.00	32.99	C
ATOM	230	CD1	TYR	A	61	13.178	68.339	51.354	1.00	45.35	C
ATOM	231	CE1	TYR	A	61	12.773	69.487	52.259	1.00	40.82	C
ATOM	232	CZ	TYR	A	61	13.066	70.717	51.902	1.00	46.50	C
ATOM	233	OH	TYR	A	61	12.786	71.824	52.622	1.00	47.47	O
ATOM	234	CE2	TYR	A	61	13.839	70.990	50.628	1.00	51.95	C
ATOM	235	CD2	TYR	A	61	14.226	69.867	49.839	1.00	43.97	C
ATOM	236	C	TYR	A	61	16.097	65.785	49.079	1.00	33.82	C
ATOM	237	O	TYR	A	61	15.325	64.764	49.120	1.00	37.81	O
ATOM	238	N	GLY	A	62	17.246	65.734	48.407	1.00	35.15	N
ATOM	239	CA	GLY	A	62	17.675	64.454	47.686	1.00	31.72	C
ATOM	240	C	GLY	A	62	17.364	64.510	46.288	1.00	30.90	C
ATOM	241	O	GLY	A	62	16.884	65.555	45.813	1.00	31.05	O
ATOM	242	N	PRO	A	63	17.613	63.507	45.596	1.00	28.44	N
ATOM	243	CA	PRO	A	63	17.440	63.575	44.134	1.00	35.51	C
ATOM	244	CB	PRO	A	63	18.204	62.341	43.642	1.00	37.55	C
ATOM	245	CG	PRO	A	63	17.880	61.324	44.704	1.00	33.67	C
ATOM	246	CD	PRO	A	63	17.992	62.249	45.953	1.00	24.74	C
ATOM	247	C	PRO	A	63	15.987	63.421	43.697	1.00	38.70	C
ATOM	248	O	PRO	A	63	15.713	63.497	42.492	1.00	43.27	O
ATOM	249	N	VAL	A	64	15.044	63.205	44.566	1.00	37.74	N
ATOM	250	CA	VAL	A	64	13.662	63.148	44.088	1.00	37.62	C
ATOM	251	CB	VAL	A	64	13.145	61.920	44.259	1.00	38.22	C
ATOM	252	CG1	VAL	A	64	11.789	61.909	43.767	1.00	40.59	C
ATOM	253	CG2	VAL	A	64	13.980	60.947	43.540	1.00	42.93	C
ATOM	254	C	VAL	A	64	12.813	63.957	45.033	1.00	38.46	C
ATOM	255	O	VAL	A	64	12.560	63.443	46.101	1.00	34.96	O
ATOM	256	N	PHE	A	65	12.460	65.229	44.682	1.00	37.74	N
ATOM	257	CA	PHE	A	65	11.583	65.884	45.545	1.00	38.33	C
ATOM	258	CB	PHE	A	65	12.216	66.966	46.233	1.00	38.45	C
ATOM	259	CG	PHE	A	65	12.924	67.997	45.341	1.00	36.69	C
ATOM	260	CD1	PHE	A	65	14.068	67.720	44.808	1.00	25.30	C
ATOM	261	CE1	PHE	A	65	14.760	68.650	44.090	1.00	29.63	C
ATOM	262	CZ	PHE	A	65	14.259	69.925	43.784	1.00	39.94	C
ATOM	263	CE2	PHE	A	65	13.017	70.244	44.304	1.00	41.65	C
ATOM	264	CD2	PHE	A	65	12.365	69.243	45.100	1.00	38.35	C
ATOM	265	C	PHE	A	65	10.280	66.317	45.042	1.00	39.37	C
ATOM	266	O	PHE	A	65	10.105	66.337	43.877	1.00	37.40	O
ATOM	267	N	THR	A	66	9.321	66.687	46.025	1.00	41.23	N
ATOM	268	CA	THR	A	66	8.010	67.320	45.730	1.00	39.11	C
ATOM	269	CB	THR	A	66	6.944	66.798	46.524	1.00	38.92	C
ATOM	270	OG1	THR	A	66	6.425	65.476	46.141	1.00	42.47	O
ATOM	271	CG2	THR	A	66	5.762	67.638	46.189	1.00	43.08	C
ATOM	272	C	THR	A	66	8.011	68.801	45.746	1.00	37.63	C
ATOM	273	O	THR	A	66	8.682	69.380	46.510	1.00	40.51	O
ATOM	274	N	LEU	A	67	7.352	69.442	44.821	1.00	38.18	N
ATOM	275	CA	LEU	A	67	7.350	70.859	44.874	1.00	40.62	C
ATOM	276	CB	LEU	A	67	8.410	71.370	43.970	1.00	42.99	C
ATOM	277	CG	LEU	A	67	9.082	72.683	44.416	1.00	44.33	C
ATOM	278	CD1	LEU	A	67	10.100	72.164	45.238	1.00	47.78	C
ATOM	279	CD2	LEU	A	67	9.845	73.377	43.263	1.00	52.59	C
ATOM	280	C	LEU	A	67	6.032	71.364	44.435	1.00	40.96	C
ATOM	281	O	LEU	A	67	5.449	70.808	43.561	1.00	44.14	O
ATOM	282	N	TYR	A	68	5.528	72.426	45.035	1.00	42.97	N
ATOM	283	CA	TYR	A	68	4.187	72.986	44.726	1.00	43.54	C
ATOM	284	CB	TYR	A	68	3.442	73.334	46.069	1.00	46.49	C
ATOM	285	CG	TYR	A	68	3.015	72.055	46.726	1.00	42.81	C
ATOM	286	CD1	TYR	A	68	3.761	71.440	47.491	1.00	45.46	C
ATOM	287	CE1	TYR	A	68	3.296	70.112	48.078	1.00	44.35	C
ATOM	288	CZ	TYR	A	68	2.146	69.551	47.796	1.00	41.35	C
ATOM	289	OH	TYR	A	68	1.739	68.334	48.377	1.00	50.54	O
ATOM	290	CE2	TYR	A	68	1.391	70.167	46.975	1.00	43.11	C
ATOM	291	CD2	TYR	A	68	1.809	71.426	46.417	1.00	49.55	C
ATOM	292	C	TYR	A	68	4.200	74.216	43.904	1.00	42.83	C
ATOM	293	O	TYR	A	68	4.831	75.212	44.355	1.00	40.76	O
ATOM	294	N	PHE	A	69	3.547	74.119	42.710	1.00	38.94	N
ATOM	295	CA	PHE	A	69	3.439	75.246	41.877	1.00	42.88	C
ATOM	296	CB	PHE	A	69	3.687	74.822	40.366	1.00	45.98	C
ATOM	297	CG	PHE	A	69	5.115	74.963	39.950	1.00	45.37	C
ATOM	298	CD1	PHE	A	69	5.425	75.665	39.028	1.00	54.29	C
ATOM	299	CE1	PHE	A	69	6.655	75.785	38.719	1.00	62.21	C
ATOM	300	CZ	PHE	A	69	7.596	75.235	39.400	1.00	58.47	C
ATOM	301	CE2	PHE	A	69	7.286	74.498	40.373	1.00	56.65	C
ATOM	302	CD2	PHE	A	69	6.100	74.354	40.631	1.00	52.52	C

102/514

Figure 2

ATOM	303	C	PHE	A	69	1.960	75.697	42.129	1.00	47.00	C
ATOM	304	O	PHE	A	69	0.903	75.131	41.625	1.00	44.99	O
ATOM	305	N	GLY	A	70	1.875	76.678	43.049	1.00	49.08	N
ATOM	306	CA	GLY	A	70	0.627	76.989	43.675	1.00	46.29	C
ATOM	307	C	GLY	A	70	0.070	75.747	44.376	1.00	47.01	C
ATOM	308	O	GLY	A	70	0.712	75.288	45.384	1.00	46.20	O
ATOM	309	N	LEU	A	71	-0.998	75.156	43.846	1.00	45.27	N
ATOM	310	CA	LEU	A	71	-1.495	73.967	44.524	1.00	48.19	C
ATOM	311	CB	LEU	A	71	-3.009	74.078	44.689	1.00	51.39	C
ATOM	312	CG	LEU	A	71	-3.762	75.386	45.207	1.00	51.13	C
ATOM	313	CD1	LEU	A	71	-5.212	74.798	45.502	1.00	51.40	C
ATOM	314	CD2	LEU	A	71	-3.183	76.051	46.421	1.00	45.54	C
ATOM	315	C	LEU	A	71	-1.321	72.681	43.808	1.00	50.55	C
ATOM	316	O	LEU	A	71	-1.961	71.680	44.129	1.00	50.85	O
ATOM	317	N	LYS	A	72	-0.492	72.732	42.735	1.00	52.92	N
ATOM	318	CA	LYS	A	72	-0.029	71.611	41.850	1.00	49.36	C
ATOM	319	CB	LYS	A	72	0.375	72.193	40.552	1.00	51.95	C
ATOM	320	CG	LYS	A	72	0.610	71.117	39.437	1.00	47.72	C
ATOM	321	CD	LYS	A	72	0.540	71.675	38.064	1.00	50.49	C
ATOM	322	CE	LYS	A	72	1.172	70.777	37.144	1.00	52.75	C
ATOM	323	NZ	LYS	A	72	0.349	69.760	36.606	1.00	54.71	N
ATOM	324	C	LYS	A	72	1.223	71.052	42.382	1.00	49.88	C
ATOM	325	O	LYS	A	72	2.235	71.785	42.745	1.00	52.62	O
ATOM	326	N	PRO	A	73	1.188	69.788	42.589	1.00	51.01	N
ATOM	327	CA	PRO	A	73	2.316	69.012	43.120	1.00	51.34	C
ATOM	328	CB	PRO	A	73	1.657	67.931	43.920	1.00	48.72	C
ATOM	329	CG	PRO	A	73	0.502	67.536	43.053	1.00	51.88	C
ATOM	330	CD	PRO	A	73	0.033	68.922	42.476	1.00	54.67	C
ATOM	331	C	PRO	A	73	3.078	68.489	41.949	1.00	49.92	C
ATOM	332	O	PRO	A	73	2.600	67.724	41.111	1.00	47.59	O
ATOM	333	N	ILE	A	74	4.302	68.934	41.939	1.00	49.24	N
ATOM	334	CA	ILE	A	74	5.294	68.529	40.945	1.00	47.80	C
ATOM	335	CB	ILE	A	74	5.905	69.822	40.552	1.00	47.57	C
ATOM	336	CG1	ILE	A	74	4.805	70.654	39.867	1.00	51.23	C
ATOM	337	CD1	ILE	A	74	3.932	69.845	39.054	1.00	47.39	C
ATOM	338	CG2	ILE	A	74	7.076	69.714	39.678	1.00	41.48	C
ATOM	339	C	ILE	A	74	6.345	67.633	41.560	1.00	46.36	C
ATOM	340	O	ILE	A	74	6.958	68.005	42.624	1.00	49.37	O
ATOM	341	N	VAL	A	75	6.611	66.492	40.973	1.00	42.42	N
ATOM	342	CA	VAL	A	75	7.863	65.711	41.434	1.00	42.45	C
ATOM	343	CB	VAL	A	75	7.583	64.286	41.184	1.00	41.32	C
ATOM	344	CG1	VAL	A	75	8.698	63.412	41.487	1.00	42.30	C
ATOM	345	CG2	VAL	A	75	6.617	63.931	42.153	1.00	51.09	C
ATOM	346	C	VAL	A	75	9.235	66.205	40.620	1.00	38.51	C
ATOM	347	O	VAL	A	75	9.234	66.157	39.432	1.00	39.21	O
ATOM	348	N	VAL	A	76	10.230	66.801	41.193	1.00	34.26	N
ATOM	349	CA	VAL	A	76	11.466	67.143	40.492	1.00	35.04	C
ATOM	350	CB	VAL	A	76	12.169	68.267	41.089	1.00	34.56	C
ATOM	351	CG1	VAL	A	76	13.217	68.660	40.351	1.00	38.94	C
ATOM	352	CG2	VAL	A	76	11.429	69.392	41.055	1.00	36.88	C
ATOM	353	C	VAL	A	76	12.516	65.902	40.531	1.00	34.67	C
ATOM	354	O	VAL	A	76	12.760	65.394	41.624	1.00	35.64	O
ATOM	355	N	LEU	A	77	13.085	65.400	39.390	1.00	33.42	N
ATOM	356	CA	LEU	A	77	14.206	64.371	39.382	1.00	30.96	C
ATOM	357	CB	LEU	A	77	13.977	63.526	38.299	1.00	31.96	C
ATOM	358	CG	LEU	A	77	12.761	62.726	38.234	1.00	32.20	C
ATOM	359	CD1	LEU	A	77	12.990	61.553	37.392	1.00	31.25	C
ATOM	360	CD2	LEU	A	77	12.339	62.366	39.583	1.00	33.23	C
ATOM	361	C	LEU	A	77	15.517	65.093	39.158	1.00	32.29	C
ATOM	362	O	LEU	A	77	15.645	65.791	38.203	1.00	31.80	O
ATOM	363	N	HIS	A	78	16.527	65.002	40.006	1.00	35.21	N
ATOM	364	CA	HIS	A	78	17.731	65.799	39.825	1.00	32.29	C
ATOM	365	CB	HIS	A	78	18.027	66.453	40.979	1.00	33.94	C
ATOM	366	CG	HIS	A	78	18.883	67.647	40.844	1.00	30.39	C
ATOM	367	ND1	HIS	A	78	20.222	67.635	41.099	1.00	34.55	N
ATOM	368	CE1	HIS	A	78	20.732	68.882	40.898	1.00	35.88	C
ATOM	369	NE2	HIS	A	78	19.734	69.700	40.642	1.00	36.13	N
ATOM	370	CD2	HIS	A	78	18.580	68.913	40.562	1.00	33.85	C
ATOM	371	C	HIS	A	78	18.983	65.101	39.385	1.00	37.25	C
ATOM	372	O	HIS	A	78	19.719	65.525	38.320	1.00	40.21	O
ATOM	373	N	GLY	A	79	19.513	64.070	39.882	1.00	34.84	N
ATOM	374	CA	GLY	A	79	20.829	63.962	38.967	1.00	29.06	C
ATOM	375	C	GLY	A	79	20.675	62.971	37.862	1.00	29.37	C
ATOM	376	O	GLY	A	79	19.577	62.480	37.514	1.00	30.61	O
ATOM	377	N	TYR	A	80	21.772	62.625	37.253	1.00	30.22	N
ATOM	378	CA	TYR	A	80	21.777	61.614	36.173	1.00	31.63	C

Figure 2

ATOM	379	CB	TYR	A	80	23.245	61.404	35.719	1.00	41.22	C
ATOM	380	CG	TYR	A	80	23.387	60.297	34.773	1.00	41.29	C
ATOM	381	CD1	TYR	A	80	23.320	60.509	33.395	1.00	44.38	C
ATOM	382	CE1	TYR	A	80	23.355	59.409	32.506	1.00	40.96	C
ATOM	383	CZ	TYR	A	80	23.482	58.206	33.018	1.00	38.40	C
ATOM	384	OH	TYR	A	80	23.558	57.184	32.118	1.00	53.57	O
ATOM	385	CE2	TYR	A	80	23.520	58.047	34.241	1.00	37.17	C
ATOM	386	CD2	TYR	A	80	23.494	59.092	35.182	1.00	35.13	C
ATOM	387	C	TYR	A	80	21.275	60.355	36.562	1.00	32.13	C
ATOM	388	O	TYR	A	80	20.523	59.739	35.835	1.00	33.46	O
ATOM	389	N	GLU	A	81	21.614	59.844	37.744	1.00	35.97	N
ATOM	390	CA	GLU	A	81	21.038	58.483	38.071	1.00	36.54	C
ATOM	391	CB	GLU	A	81	21.557	57.933	39.240	1.00	35.03	C
ATOM	392	CG	GLU	A	81	23.057	57.851	39.310	1.00	45.55	C
ATOM	393	CD	GLU	A	81	23.807	56.786	38.250	1.00	52.36	C
ATOM	394	OE1	GLU	A	81	25.082	56.938	37.943	1.00	53.35	O
ATOM	395	OE2	GLU	A	81	23.192	55.868	37.668	1.00	49.01	O
ATOM	396	C	GLU	A	81	19.473	58.478	38.105	1.00	38.69	C
ATOM	397	O	GLU	A	81	18.777	57.582	37.492	1.00	40.69	O
ATOM	398	N	ALA	A	82	18.866	59.477	38.726	1.00	37.87	N
ATOM	399	CA	ALA	A	82	17.403	59.402	38.793	1.00	34.63	C
ATOM	400	CB	ALA	A	82	16.936	60.284	39.741	1.00	33.65	C
ATOM	401	C	ALA	A	82	16.908	59.786	37.462	1.00	36.43	C
ATOM	402	O	ALA	A	82	15.949	59.123	36.946	1.00	39.84	O
ATOM	403	N	VAL	A	83	17.443	60.822	36.777	1.00	34.69	N
ATOM	404	CA	VAL	A	83	16.814	61.096	35.416	1.00	31.85	C
ATOM	405	CB	VAL	A	83	17.547	62.058	34.734	1.00	31.52	C
ATOM	406	CG1	VAL	A	83	17.163	62.270	33.406	1.00	32.33	C
ATOM	407	CG2	VAL	A	83	17.495	63.268	35.495	1.00	31.16	C
ATOM	408	C	VAL	A	83	17.010	59.851	34.591	1.00	32.74	C
ATOM	409	O	VAL	A	83	16.153	59.396	33.855	1.00	33.35	O
ATOM	410	N	LYS	A	84	18.098	59.171	34.749	1.00	36.40	N
ATOM	411	CA	LYS	A	84	18.191	57.933	33.885	1.00	43.00	C
ATOM	412	CB	LYS	A	84	19.707	57.559	33.610	1.00	45.12	C
ATOM	413	CG	LYS	A	84	20.249	56.125	33.827	1.00	46.51	C
ATOM	414	CD	LYS	A	84	20.164	55.222	32.769	1.00	46.80	C
ATOM	415	CE	LYS	A	84	20.907	53.815	33.146	1.00	56.15	C
ATOM	416	NZ	LYS	A	84	20.191	52.423	33.437	1.00	45.69	N
ATOM	417	C	LYS	A	84	17.288	56.769	34.268	1.00	43.88	C
ATOM	418	O	LYS	A	84	16.634	56.144	33.418	1.00	48.34	O
ATOM	419	N	GLU	A	85	17.156	56.530	35.548	1.00	44.31	N
ATOM	420	CA	GLU	A	85	16.281	55.505	35.965	1.00	44.55	C
ATOM	421	CB	GLU	A	85	16.346	55.456	37.425	1.00	48.21	C
ATOM	422	CG	GLU	A	85	15.488	54.392	38.101	1.00	52.59	C
ATOM	423	CD	GLU	A	85	16.020	54.063	39.519	1.00	57.58	C
ATOM	424	OE1	GLU	A	85	17.062	54.787	39.962	1.00	49.26	O
ATOM	425	OE2	GLU	A	85	15.439	53.002	40.081	1.00	60.10	O
ATOM	426	C	GLU	A	85	14.867	55.823	35.587	1.00	46.07	C
ATOM	427	O	GLU	A	85	14.145	54.912	35.244	1.00	51.88	O
ATOM	428	N	ALA	A	86	14.427	57.069	35.552	1.00	44.28	N
ATOM	429	CA	ALA	A	86	13.107	57.312	35.063	1.00	43.86	C
ATOM	430	CB	ALA	A	86	12.608	58.780	35.657	1.00	44.87	C
ATOM	431	C	ALA	A	86	12.921	57.327	33.600	1.00	41.92	C
ATOM	432	O	ALA	A	86	12.225	56.564	33.003	1.00	44.80	O
ATOM	433	N	LEU	A	87	13.539	58.273	32.981	1.00	42.14	N
ATOM	434	CA	LEU	A	87	13.420	58.456	31.532	1.00	42.12	C
ATOM	435	CB	LEU	A	87	14.168	59.696	31.250	1.00	41.66	C
ATOM	436	CG	LEU	A	87	13.363	60.857	30.767	1.00	41.34	C
ATOM	437	CD1	LEU	A	87	12.213	60.847	31.514	1.00	36.74	C
ATOM	438	CD2	LEU	A	87	14.193	62.156	30.833	1.00	42.00	C
ATOM	439	C	LEU	A	87	13.884	57.252	30.605	1.00	41.20	C
ATOM	440	O	LEU	A	87	13.425	57.144	29.561	1.00	43.07	O
ATOM	441	N	ILE	A	88	14.782	56.394	31.057	1.00	42.66	N
ATOM	442	CA	ILE	A	88	15.163	55.221	30.393	1.00	44.60	C
ATOM	443	CB	ILE	A	88	16.654	55.187	30.235	1.00	43.58	C
ATOM	444	CG1	ILE	A	88	16.962	56.061	29.007	1.00	40.46	C
ATOM	445	CD1	ILE	A	88	18.279	56.599	29.274	1.00	49.74	C
ATOM	446	CG2	ILE	A	88	17.083	53.927	29.605	1.00	49.59	C
ATOM	447	C	ILE	A	88	14.688	53.933	31.090	1.00	46.05	C
ATOM	448	O	ILE	A	88	14.151	53.148	30.455	1.00	44.79	O
ATOM	449	N	ASP	A	89	14.864	53.718	32.381	1.00	47.92	N
ATOM	450	CA	ASP	A	89	14.388	52.438	32.947	1.00	50.27	C
ATOM	451	CB	ASP	A	89	15.089	52.075	34.220	1.00	52.12	C
ATOM	452	CG	ASP	A	89	16.677	52.187	34.043	1.00	59.48	C
ATOM	453	OD1	ASP	A	89	17.472	52.610	34.992	1.00	65.01	O
ATOM	454	OD2	ASP	A	89	17.193	51.968	32.909	1.00	62.87	O

104/514

Figure 2

ATOM	455	C	ASP	A	89	12.936	52.316	33.045	1.00	51.46	C
ATOM	456	O	ASP	A	89	12.346	51.290	32.651	1.00	52.59	O
ATOM	457	N	LEU	A	90	12.251	53.330	33.506	1.00	52.89	N
ATOM	458	CA	LEU	A	90	10.835	53.281	33.407	1.00	51.36	C
ATOM	459	CB	LEU	A	90	10.319	53.775	34.597	1.00	53.57	C
ATOM	460	CG	LEU	A	90	10.401	52.811	35.798	1.00	54.91	C
ATOM	461	CD1	LEU	A	90	11.036	51.673	35.416	1.00	55.94	C
ATOM	462	CD2	LEU	A	90	11.245	53.644	36.938	1.00	57.15	C
ATOM	463	C	LEU	A	90	10.354	54.139	32.249	1.00	52.73	C
ATOM	464	O	LEU	A	90	9.248	54.785	32.228	1.00	53.90	O
ATOM	465	N	GLY	A	91	11.143	54.084	31.202	1.00	52.16	N
ATOM	466	CA	GLY	A	91	10.760	54.746	30.013	1.00	51.92	C
ATOM	467	C	GLY	A	91	9.298	55.012	29.734	1.00	50.75	C
ATOM	468	O	GLY	A	91	8.884	56.191	29.570	1.00	53.20	O
ATOM	469	N	GLU	A	92	8.558	53.968	29.577	1.00	50.15	N
ATOM	470	CA	GLU	A	92	7.166	54.068	29.254	1.00	52.51	C
ATOM	471	CB	GLU	A	92	6.425	52.719	29.075	1.00	54.52	C
ATOM	472	CG	GLU	A	92	5.957	52.271	27.655	1.00	60.90	C
ATOM	473	CD	GLU	A	92	4.997	53.255	26.988	1.00	66.63	C
ATOM	474	OE1	GLU	A	92	3.919	53.611	27.562	1.00	59.98	O
ATOM	475	OE2	GLU	A	92	5.326	53.636	25.791	1.00	72.94	O
ATOM	476	C	GLU	A	92	6.486	54.698	30.439	1.00	51.74	C
ATOM	477	O	GLU	A	92	5.697	55.675	30.251	1.00	53.66	O
ATOM	478	N	GLU	A	93	6.722	54.230	31.620	1.00	47.11	N
ATOM	479	CA	GLU	A	93	6.021	54.933	32.696	1.00	47.89	C
ATOM	480	CB	GLU	A	93	6.493	54.435	34.095	1.00	50.04	C
ATOM	481	CG	GLU	A	93	6.126	53.034	34.505	1.00	47.62	C
ATOM	482	CD	GLU	A	93	6.637	52.112	33.507	1.00	52.98	C
ATOM	483	OE1	GLU	A	93	7.887	52.000	33.199	1.00	65.43	O
ATOM	484	OE2	GLU	A	93	5.797	51.535	32.917	1.00	56.11	O
ATOM	485	C	GLU	A	93	6.209	56.426	32.725	1.00	43.45	C
ATOM	486	O	GLU	A	93	5.476	57.085	33.364	1.00	43.57	O
ATOM	487	N	PHE	A	94	7.250	56.933	32.137	1.00	41.68	N
ATOM	488	CA	PHE	A	94	7.459	58.335	32.166	1.00	42.22	C
ATOM	489	CB	PHE	A	94	8.786	58.675	32.848	1.00	42.24	C
ATOM	490	CG	PHE	A	94	8.896	58.560	34.353	1.00	33.91	C
ATOM	491	CD1	PHE	A	94	8.878	59.557	35.157	1.00	33.27	C
ATOM	492	CE1	PHE	A	94	9.076	59.420	36.457	1.00	35.44	C
ATOM	493	CZ	PHE	A	94	9.306	58.227	36.960	1.00	34.75	C
ATOM	494	CE2	PHE	A	94	9.320	57.194	36.176	1.00	35.09	C
ATOM	495	CD2	PHE	A	94	9.127	57.379	34.886	1.00	44.17	C
ATOM	496	C	PHE	A	94	7.345	59.100	30.741	1.00	43.08	C
ATOM	497	O	PHE	A	94	7.882	60.317	30.569	1.00	43.10	O
ATOM	498	N	SER	A	95	6.653	58.450	29.803	1.00	41.94	N
ATOM	499	CA	SER	A	95	6.554	58.933	28.535	1.00	42.05	C
ATOM	500	CB	SER	A	95	6.237	57.753	27.781	1.00	46.23	C
ATOM	501	OG	SER	A	95	4.808	57.990	27.384	1.00	54.40	O
ATOM	502	C	SER	A	95	5.519	59.970	28.363	1.00	41.49	C
ATOM	503	O	SER	A	95	5.362	60.751	27.445	1.00	44.07	O
ATOM	504	N	GLY	A	96	4.714	60.151	29.345	1.00	42.97	N
ATOM	505	CA	GLY	A	96	3.625	61.190	29.184	1.00	38.57	C
ATOM	506	C	GLY	A	96	4.106	62.581	29.288	1.00	37.05	C
ATOM	507	O	GLY	A	96	5.078	62.905	29.960	1.00	36.37	O
ATOM	508	N	ARG	A	97	3.386	63.501	28.658	1.00	37.19	N
ATOM	509	CA	ARG	A	97	3.728	64.945	28.721	1.00	33.72	C
ATOM	510	CB	ARG	A	97	3.490	65.567	27.397	1.00	35.62	C
ATOM	511	CG	ARG	A	97	3.452	66.925	27.285	1.00	32.80	C
ATOM	512	CD	ARG	A	97	4.750	67.577	27.160	1.00	38.15	C
ATOM	513	NE	ARG	A	97	5.571	67.172	26.008	1.00	40.30	N
ATOM	514	CZ	ARG	A	97	6.834	66.774	26.186	1.00	37.33	C
ATOM	515	NH1	ARG	A	97	7.560	66.451	25.247	1.00	36.16	N
ATOM	516	NH2	ARG	A	97	7.352	66.763	27.351	1.00	35.53	N
ATOM	517	C	ARG	A	97	2.891	65.558	29.630	1.00	38.72	C
ATOM	518	O	ARG	A	97	1.762	65.259	29.712	1.00	43.89	O
ATOM	519	N	GLY	A	98	3.340	66.518	30.361	1.00	39.70	N
ATOM	520	CA	GLY	A	98	2.507	67.223	31.230	1.00	35.42	C
ATOM	521	C	GLY	A	98	2.348	68.674	30.984	1.00	37.85	C
ATOM	522	O	GLY	A	98	3.179	69.372	30.650	1.00	43.46	O
ATOM	523	N	ILE	A	99	1.216	69.219	31.287	1.00	40.48	N
ATOM	524	CA	ILE	A	99	0.921	70.560	30.988	1.00	40.83	C
ATOM	525	CB	ILE	A	99	-0.324	70.565	30.133	1.00	42.22	C
ATOM	526	CG1	ILE	A	99	-0.198	69.359	29.105	1.00	47.46	C
ATOM	527	CD1	ILE	A	99	-1.059	69.381	27.924	1.00	52.31	C
ATOM	528	CG2	ILE	A	99	-0.282	71.847	29.225	1.00	46.39	C
ATOM	529	C	ILE	A	99	0.753	71.383	32.101	1.00	42.83	C
ATOM	530	O	ILE	A	99	0.265	70.978	32.932	1.00	46.82	O

105/514

Figure 2

ATOM	531	N	PHE	A	100	1.247	72.589	32.120	1.00	45.58	N
ATOM	532	CA	PHE	A	100	1.179	73.545	33.105	1.00	44.13	C
ATOM	533	CB	PHE	A	100	2.467	74.337	33.157	1.00	45.39	C
ATOM	534	CG	PHE	A	100	3.572	73.824	34.150	1.00	48.15	C
ATOM	535	CD1	PHE	A	100	4.828	73.857	33.882	1.00	46.26	C
ATOM	536	CE1	PHE	A	100	5.715	73.352	34.823	1.00	55.82	C
ATOM	537	C2	PHE	A	100	5.371	72.800	36.047	1.00	52.74	C
ATOM	538	CE2	PHE	A	100	4.260	72.770	36.321	1.00	57.30	C
ATOM	539	CD2	PHE	A	100	3.270	73.313	35.361	1.00	60.27	C
ATOM	540	C	PHE	A	100	0.004	74.566	32.593	1.00	48.97	C
ATOM	541	O	PHE	A	100	-0.372	74.663	31.410	1.00	51.86	O
ATOM	542	N	PRO	A	101	-0.619	75.323	33.464	1.00	49.60	N
ATOM	543	CA	PRO	A	101	-1.631	76.279	33.092	1.00	48.49	C
ATOM	544	CB	PRO	A	101	-1.651	77.199	34.317	1.00	49.09	C
ATOM	545	CG	PRO	A	101	-1.489	76.088	35.590	1.00	49.64	C
ATOM	546	CD	PRO	A	101	-0.417	75.227	34.929	1.00	49.81	C
ATOM	547	C	PRO	A	101	-1.399	77.118	31.987	1.00	47.42	C
ATOM	548	O	PRO	A	101	-2.152	77.158	31.118	1.00	50.36	O
ATOM	549	N	LEU	A	102	-0.390	77.895	31.924	1.00	47.22	N
ATOM	550	CA	LEU	A	102	-0.356	78.792	30.721	1.00	45.43	C
ATOM	551	CB	LEU	A	102	0.835	79.617	30.707	1.00	43.84	C
ATOM	552	CG	LEU	A	102	1.100	80.570	29.595	1.00	49.64	C
ATOM	553	CD1	LEU	A	102	1.572	79.963	28.410	1.00	50.08	C
ATOM	554	CD2	LEU	A	102	-0.189	81.403	29.290	1.00	56.08	C
ATOM	555	C	LEU	A	102	-0.496	78.046	29.469	1.00	47.51	C
ATOM	556	O	LEU	A	102	-1.174	78.422	28.617	1.00	50.42	O
ATOM	557	N	ALA	A	103	0.034	76.883	29.317	1.00	47.74	N
ATOM	558	CA	ALA	A	103	-0.102	76.249	28.084	1.00	49.06	C
ATOM	559	CB	ALA	A	103	1.108	75.241	27.895	1.00	49.63	C
ATOM	560	C	ALA	A	103	-1.401	75.538	27.799	1.00	48.96	C
ATOM	561	O	ALA	A	103	-1.909	75.362	26.702	1.00	47.16	O
ATOM	562	N	GLU	A	104	-1.849	74.991	28.812	1.00	51.12	N
ATOM	563	CA	GLU	A	104	-3.061	74.338	28.738	1.00	53.84	C
ATOM	564	CB	GLU	A	104	-3.434	73.847	30.101	1.00	51.49	C
ATOM	565	CG	GLU	A	104	-4.577	72.940	30.021	1.00	60.23	C
ATOM	566	CD	GLU	A	104	-4.704	72.137	31.311	1.00	61.76	C
ATOM	567	OE1	GLU	A	104	-4.643	72.714	32.320	1.00	62.45	O
ATOM	568	OE2	GLU	A	104	-4.842	70.878	31.346	1.00	78.40	O
ATOM	569	C	GLU	A	104	-4.027	75.335	28.184	1.00	53.81	C
ATOM	570	O	GLU	A	104	-4.763	75.010	27.399	1.00	58.07	O
ATOM	571	N	ARG	A	105	-3.926	76.588	28.480	1.00	54.06	N
ATOM	572	CA	ARG	A	105	-4.845	77.607	27.897	1.00	53.08	C
ATOM	573	CB	ARG	A	105	-4.863	78.801	28.755	1.00	52.33	C
ATOM	574	CG	ARG	A	105	-5.776	78.761	29.837	1.00	60.75	C
ATOM	575	CD	ARG	A	105	-7.177	79.093	29.364	1.00	66.58	C
ATOM	576	NE	ARG	A	105	-7.801	80.399	29.612	1.00	70.83	N
ATOM	577	C2	ARG	A	105	-8.194	80.834	30.747	1.00	66.82	C
ATOM	578	NH1	ARG	A	105	-8.755	82.042	30.787	1.00	71.12	N
ATOM	579	NH2	ARG	A	105	-8.013	80.102	31.830	1.00	66.39	N
ATOM	580	C	ARG	A	105	-4.508	78.140	26.568	1.00	51.49	C
ATOM	581	O	ARG	A	105	-5.367	78.575	25.824	1.00	52.38	O
ATOM	582	N	ALA	A	106	-3.215	78.141	26.252	1.00	52.04	N
ATOM	583	CA	ALA	A	106	-2.761	78.650	24.960	1.00	51.03	C
ATOM	584	CB	ALA	A	106	-1.399	79.260	24.984	1.00	47.30	C
ATOM	585	C	ALA	A	106	-2.853	77.740	23.906	1.00	49.44	C
ATOM	586	O	ALA	A	106	-2.702	78.215	22.818	1.00	50.44	O
ATOM	587	N	ASN	A	107	-3.118	76.510	24.221	1.00	49.44	N
ATOM	588	CA	ASN	A	107	-3.139	75.490	23.196	1.00	55.02	C
ATOM	589	CB	ASN	A	107	-2.238	74.299	23.506	1.00	55.52	C
ATOM	590	CG	ASN	A	107	-0.864	74.595	23.126	1.00	58.78	C
ATOM	591	OD1	ASN	A	107	-0.019	74.806	24.025	1.00	67.45	O
ATOM	592	ND2	ASN	A	107	-0.618	74.760	21.847	1.00	49.03	N
ATOM	593	C	ASN	A	107	-4.392	74.852	22.828	1.00	57.35	C
ATOM	594	O	ASN	A	107	-4.772	73.931	23.479	1.00	62.61	O
ATOM	595	N	ARG	A	108	-5.007	75.240	21.749	1.00	58.69	N
ATOM	596	CA	ARG	A	108	-6.277	74.644	21.338	1.00	59.97	C
ATOM	597	CB	ARG	A	108	-7.139	75.805	20.595	1.00	60.79	C
ATOM	598	CG	ARG	A	108	-8.495	76.158	21.034	1.00	61.21	C
ATOM	599	CD	ARG	A	108	-8.629	76.709	22.476	1.00	65.73	C
ATOM	600	NE	ARG	A	108	-9.305	78.008	22.660	1.00	59.95	N
ATOM	601	C2	ARG	A	108	-9.363	78.879	21.749	1.00	61.14	C
ATOM	602	NH1	ARG	A	108	-8.807	78.667	20.571	1.00	55.83	N
ATOM	603	NH2	ARG	A	108	-9.963	80.020	22.009	1.00	67.57	N
ATOM	604	C	ARG	A	108	-5.808	73.622	20.311	1.00	60.45	C
ATOM	605	O	ARG	A	108	-5.587	73.916	19.074	1.00	65.57	O
ATOM	606	N	GLY	A	109	-5.547	72.425	20.680	1.00	59.35	N

Figure 2

ATOM	607	CA	GLY A 109	-5.096	71.497	19.611	1.00	55.75	C
ATOM	608	C	GLY A 109	-3.834	70.683	19.845	1.00	54.74	C
ATOM	609	O	GLY A 109	-2.831	71.171	20.060	1.00	55.20	O
ATOM	610	N	PHE A 110	-3.943	69.379	19.868	1.00	53.54	N
ATOM	611	CA	PHE A 110	-2.823	68.557	20.048	1.00	51.28	C
ATOM	612	CB	PHE A 110	-3.093	67.607	21.151	1.00	50.87	C
ATOM	613	CG	PHE A 110	-3.390	68.292	22.438	1.00	58.40	C
ATOM	614	CD1	PHE A 110	-2.552	69.294	22.919	1.00	58.60	C
ATOM	615	CE1	PHE A 110	-2.815	69.940	24.104	1.00	65.41	C
ATOM	616	CZ	PHE A 110	-3.871	69.624	24.821	1.00	65.14	C
ATOM	617	CE2	PHE A 110	-4.705	68.624	24.347	1.00	68.77	C
ATOM	618	CD2	PHE A 110	-4.470	67.959	23.154	1.00	59.89	C
ATOM	619	C	PHE A 110	-2.258	67.822	18.868	1.00	51.96	C
ATOM	620	O	PHE A 110	-2.858	67.036	18.162	1.00	54.58	O
ATOM	621	N	GLY A 111	-1.009	68.108	18.668	1.00	50.81	N
ATOM	622	CA	GLY A 111	-0.192	67.486	17.668	1.00	49.70	C
ATOM	623	C	GLY A 111	0.796	66.444	18.108	1.00	45.32	C
ATOM	624	O	GLY A 111	0.480	65.229	18.120	1.00	43.73	O
ATOM	625	N	ILE A 112	1.986	66.940	18.464	1.00	43.32	N
ATOM	626	CA	ILE A 112	3.069	66.076	18.953	1.00	38.93	C
ATOM	627	CB	ILE A 112	3.963	65.867	17.954	1.00	40.47	C
ATOM	628	CG1	ILE A 112	4.959	64.792	18.225	1.00	44.81	C
ATOM	629	CD1	ILE A 112	5.646	64.393	16.889	1.00	44.24	C
ATOM	630	CG2	ILE A 112	4.628	67.146	17.536	1.00	44.49	C
ATOM	631	C	ILE A 112	3.634	66.519	20.158	1.00	37.30	C
ATOM	632	O	ILE A 112	3.798	65.754	21.003	1.00	44.60	O
ATOM	633	N	VAL A 113	3.895	67.752	20.390	1.00	35.52	N
ATOM	634	CA	VAL A 113	4.566	68.149	21.568	1.00	34.15	C
ATOM	635	CB	VAL A 113	4.871	69.577	21.480	1.00	33.64	C
ATOM	636	CG1	VAL A 113	5.242	70.127	22.793	1.00	38.82	C
ATOM	637	CG2	VAL A 113	5.938	69.834	20.622	1.00	33.21	C
ATOM	638	C	VAL A 113	3.730	67.968	22.821	1.00	37.39	C
ATOM	639	O	VAL A 113	4.290	67.847	23.906	1.00	40.55	O
ATOM	640	N	PHE A 114	2.406	68.044	22.730	1.00	39.70	N
ATOM	641	CA	PHE A 114	1.468	67.963	23.874	1.00	37.76	C
ATOM	642	CB	PHE A 114	0.720	69.313	24.006	1.00	36.16	C
ATOM	643	CG	PHE A 114	1.554	70.451	24.307	1.00	33.53	C
ATOM	644	CD1	PHE A 114	1.643	71.457	23.462	1.00	41.04	C
ATOM	645	CE1	PHE A 114	2.484	72.739	23.754	1.00	41.09	C
ATOM	646	CZ	PHE A 114	3.191	72.797	25.020	1.00	38.57	C
ATOM	647	CE2	PHE A 114	3.089	71.746	25.866	1.00	32.94	C
ATOM	648	CD2	PHE A 114	-2.234	70.574	25.477	1.00	37.21	C
ATOM	649	C	PHE A 114	0.487	66.829	23.824	1.00	37.32	C
ATOM	650	O	PHE A 114	-0.320	66.548	24.632	1.00	41.71	O
ATOM	651	N	SER A 115	0.524	66.085	22.866	1.00	40.66	N
ATOM	652	CA	SER A 115	-0.348	64.952	22.767	1.00	39.87	C
ATOM	653	CB	SER A 115	-0.040	64.363	21.453	1.00	42.53	C
ATOM	654	OG	SER A 115	-0.769	65.065	20.492	1.00	53.09	O
ATOM	655	C	SER A 115	0.087	63.930	23.760	1.00	40.89	C
ATOM	656	O	SER A 115	1.143	64.005	24.298	1.00	41.22	O
ATOM	657	N	ASN A 116	-0.735	62.901	23.969	1.00	41.21	N
ATOM	658	CA	ASN A 116	-0.471	61.900	24.975	1.00	38.19	C
ATOM	659	CB	ASN A 116	-1.005	62.300	26.273	1.00	35.93	C
ATOM	660	CG	ASN A 116	0.074	62.715	27.317	1.00	39.46	C
ATOM	661	OD1	ASN A 116	0.942	61.936	27.625	1.00	48.45	O
ATOM	662	ND2	ASN A 116	-0.087	63.827	27.981	1.00	36.40	N
ATOM	663	C	ASN A 116	-1.135	60.673	24.381	1.00	38.66	C
ATOM	664	O	ASN A 116	-1.610	60.648	23.243	1.00	37.28	O
ATOM	665	N	GLY A 117	-1.026	59.565	25.027	1.00	39.74	N
ATOM	666	CA	GLY A 117	-1.649	58.381	24.458	1.00	40.16	C
ATOM	667	C	GLY A 117	-1.374	57.925	23.014	1.00	44.99	C
ATOM	668	O	GLY A 117	-0.338	58.179	22.417	1.00	46.24	O
ATOM	669	N	LYS A 118	-2.335	57.224	22.434	1.00	45.77	N
ATOM	670	CA	LYS A 118	-2.293	56.851	21.065	1.00	47.64	C
ATOM	671	CB	LYS A 118	-3.539	55.966	20.648	1.00	50.45	C
ATOM	672	CG	LYS A 118	-4.554	55.917	21.869	1.00	61.75	C
ATOM	673	CD	LYS A 118	-4.979	57.424	22.581	1.00	62.69	C
ATOM	674	CE	LYS A 118	-5.622	57.163	23.978	1.00	59.63	C
ATOM	675	NZ	LYS A 118	-4.684	56.563	25.027	1.00	60.58	N
ATOM	676	C	LYS A 118	-2.169	58.075	20.180	1.00	43.23	C
ATOM	677	O	LYS A 118	-1.481	58.104	19.240	1.00	44.81	O
ATOM	678	N	LYS A 119	-2.797	59.112	20.399	1.00	41.76	N
ATOM	679	CA	LYS A 119	-2.558	60.123	19.378	1.00	42.93	C
ATOM	680	CB	LYS A 119	-3.251	61.375	19.740	1.00	40.49	C
ATOM	681	CG	LYS A 119	-3.368	62.325	18.712	1.00	47.26	C
ATOM	682	CD	LYS A 119	-4.414	63.567	19.241	1.00	53.29	C

107/514

Figure 2

ATOM	683	CE	LYS	A	119	-4.567	64.660	18.271	1.00	55.89	C
ATOM	684	NZ	LYS	A	119	-5.899	65.439	18.478	1.00	65.64	N
ATOM	685	C	LYS	A	119	-1.027	60.411	19.338	1.00	45.58	C
ATOM	686	O	LYS	A	119	-0.368	60.379	18.287	1.00	45.13	O
ATOM	687	N	TRP	A	120	-0.424	60.646	20.534	1.00	45.87	N
ATOM	688	CA	TRP	A	120	0.952	60.949	20.552	1.00	43.55	C
ATOM	689	CB	TRP	A	120	1.335	61.212	21.956	1.00	44.81	C
ATOM	690	CG	TRP	A	120	2.808	61.343	22.101	1.00	46.13	C
ATOM	691	CD1	TRP	A	120	3.546	62.399	21.734	1.00	50.97	C
ATOM	692	NE1	TRP	A	120	4.873	62.141	22.011	1.00	54.12	N
ATOM	693	CE2	TRP	A	120	4.970	60.914	22.582	1.00	45.10	C
ATOM	694	CD2	TRP	A	120	3.703	60.413	22.686	1.00	42.76	C
ATOM	695	CE3	TRP	A	120	3.539	59.171	23.275	1.00	49.62	C
ATOM	696	CZ3	TRP	A	120	4.654	58.480	23.754	1.00	47.25	C
ATOM	697	CH2	TRP	A	120	5.878	59.068	23.660	1.00	42.18	C
ATOM	698	CZ2	TRP	A	120	6.043	60.289	23.055	1.00	42.03	C
ATOM	699	C	TRP	A	120	1.726	59.870	19.950	1.00	46.08	C
ATOM	700	O	TRP	A	120	2.458	60.115	19.026	1.00	46.96	O
ATOM	701	N	LYS	A	121	1.598	58.653	20.449	1.00	46.24	N
ATOM	702	CA	LYS	A	121	2.380	57.521	20.103	1.00	46.13	C
ATOM	703	CB	LYS	A	121	1.759	56.299	20.617	1.00	48.78	C
ATOM	704	CG	LYS	A	121	2.658	55.377	21.589	1.00	59.42	C
ATOM	705	CD	LYS	A	121	3.908	54.653	20.823	1.00	70.81	C
ATOM	706	CE	LYS	A	121	5.188	54.282	21.857	1.00	76.01	C
ATOM	707	NZ	LYS	A	121	6.379	55.492	22.115	1.00	72.17	N
ATOM	708	C	LYS	A	121	2.360	57.335	18.757	1.00	47.67	C
ATOM	709	O	LYS	A	121	3.278	56.866	18.179	1.00	49.99	O
ATOM	710	N	GLU	A	122	1.292	57.739	18.113	1.00	50.95	N
ATOM	711	CA	GLU	A	122	1.156	57.489	16.668	1.00	49.04	C
ATOM	712	CB	GLU	A	122	-0.251	57.203	16.395	1.00	50.93	C
ATOM	713	CG	GLU	A	122	-0.615	55.876	15.652	1.00	60.86	C
ATOM	714	CD	GLU	A	122	-2.114	55.463	15.807	1.00	64.30	C
ATOM	715	OE1	GLU	A	122	-2.402	54.678	16.748	1.00	68.75	O
ATOM	716	OE2	GLU	A	122	-2.970	55.933	14.996	1.00	69.28	O
ATOM	717	C	GLU	A	122	1.628	58.581	15.873	1.00	48.39	C
ATOM	718	O	GLU	A	122	2.343	58.303	14.960	1.00	54.52	O
ATOM	719	N	ILE	A	123	1.292	59.840	16.136	1.00	44.18	N
ATOM	720	CA	ILE	A	123	1.856	60.892	15.349	1.00	40.60	C
ATOM	721	CB	ILE	A	123	1.181	62.142	15.761	1.00	38.96	C
ATOM	722	CG1	ILE	A	123	-0.247	62.086	15.454	1.00	42.69	C
ATOM	723	CD1	ILE	A	123	-1.052	63.488	15.970	1.00	47.09	C
ATOM	724	CG2	ILE	A	123	1.683	63.444	14.944	1.00	44.85	C
ATOM	725	C	ILE	A	123	3.425	60.906	15.467	1.00	39.20	C
ATOM	726	O	ILE	A	123	4.194	61.155	14.580	1.00	40.79	O
ATOM	727	N	ARG	A	124	3.938	60.697	16.597	1.00	38.18	N
ATOM	728	CA	ARG	A	124	5.399	60.880	16.755	1.00	37.41	C
ATOM	729	CB	ARG	A	124	5.801	60.533	18.150	1.00	35.60	C
ATOM	730	CG	ARG	A	124	7.258	60.629	18.386	1.00	35.22	C
ATOM	731	CD	ARG	A	124	7.657	60.077	19.720	1.00	32.56	C
ATOM	732	NE	ARG	A	124	9.078	60.076	19.960	1.00	31.38	N
ATOM	733	CZ	ARG	A	124	9.839	61.121	20.376	1.00	40.33	C
ATOM	734	NH1	ARG	A	124	9.345	62.386	20.607	1.00	44.91	N
ATOM	735	NH2	ARG	A	124	11.186	61.004	20.560	1.00	34.96	N
ATOM	736	C	ARG	A	124	6.048	59.931	15.909	1.00	39.31	C
ATOM	737	O	ARG	A	124	7.040	60.211	15.317	1.00	42.49	O
ATOM	738	N	ARG	A	125	5.552	58.704	15.891	1.00	42.17	N
ATOM	739	CA	ARG	A	125	6.191	57.639	15.098	1.00	42.11	C
ATOM	740	CB	ARG	A	125	5.491	56.338	15.361	1.00	43.95	C
ATOM	741	CG	ARG	A	125	5.907	55.324	14.438	1.00	49.51	C
ATOM	742	CD	ARG	A	125	5.206	53.971	14.740	1.00	63.22	C
ATOM	743	NE	ARG	A	125	6.193	52.960	14.344	1.00	82.37	N
ATOM	744	CZ	ARG	A	125	6.113	51.574	14.554	1.00	91.60	C
ATOM	745	NH1	ARG	A	125	5.040	51.058	15.196	1.00	93.81	N
ATOM	746	NH2	ARG	A	125	7.113	50.704	14.127	1.00	91.56	N
ATOM	747	C	ARG	A	125	6.081	57.958	13.610	1.00	39.78	C
ATOM	748	O	ARG	A	125	6.855	57.815	12.932	1.00	41.06	O
ATOM	749	N	PHE	A	126	5.073	58.531	13.138	1.00	38.58	N
ATOM	750	CA	PHE	A	126	5.036	58.909	11.745	1.00	37.36	C
ATOM	751	CB	PHE	A	126	3.612	59.474	11.331	1.00	34.12	C
ATOM	752	CG	PHE	A	126	3.551	60.235	10.029	1.00	32.87	C
ATOM	753	CD1	PHE	A	126	3.760	61.558	10.007	1.00	45.48	C
ATOM	754	CE1	PHE	A	126	3.792	62.206	8.891	1.00	44.35	C
ATOM	755	CZ	PHE	A	126	3.573	61.550	7.789	1.00	38.98	C
ATOM	756	CE2	PHE	A	126	3.390	60.358	7.780	1.00	37.11	C
ATOM	757	CD2	PHE	A	126	3.365	59.690	8.879	1.00	39.43	C
ATOM	758	C	PHE	A	126	6.029	59.893	11.475	1.00	41.31	C

108/514

Figure 2

ATOM	759	O	PHE A 126	6.682	59.820	10.488	1.00	45.20	O
ATOM	760	N	SER A 127	6.142	60.856	12.323	1.00	42.07	N
ATOM	761	CA	SER A 127	6.984	61.920	12.122	1.00	43.52	C
ATOM	762	CB	SER A 127	6.723	62.932	13.375	1.00	46.92	C
ATOM	763	OG	SER A 127	5.366	63.490	13.219	1.00	41.28	O
ATOM	764	C	SER A 127	8.439	61.502	12.089	1.00	43.00	C
ATOM	765	O	SER A 127	9.173	61.850	11.180	1.00	47.59	O
ATOM	766	N	LEU A 128	8.872	60.715	12.978	1.00	40.47	N
ATOM	767	CA	LEU A 128	10.290	60.303	12.879	1.00	40.07	C
ATOM	768	CB	LEU A 128	10.559	59.319	13.950	1.00	36.57	C
ATOM	769	CG	LEU A 128	10.740	60.050	15.238	1.00	38.33	C
ATOM	770	CD1	LEU A 128	10.663	58.958	16.206	1.00	35.87	C
ATOM	771	CD2	LEU A 128	11.984	60.960	15.435	1.00	37.15	C
ATOM	772	C	LEU A 128	10.594	59.604	11.510	1.00	43.53	C
ATOM	773	O	LEU A 128	11.648	59.834	10.842	1.00	45.89	O
ATOM	774	N	MET A 129	9.722	58.728	11.157	1.00	46.21	N
ATOM	775	CA	MET A 129	9.796	57.996	9.935	1.00	49.76	C
ATOM	776	CB	MET A 129	8.522	57.205	9.789	1.00	51.79	C
ATOM	777	CG	MET A 129	8.691	55.783	9.153	1.00	61.62	C
ATOM	778	SD	MET A 129	9.961	54.860	10.169	1.00	69.86	S
ATOM	779	CE	MET A 129	8.561	53.672	11.577	1.00	77.26	C
ATOM	780	C	MET A 129	9.963	59.039	8.858	1.00	49.17	C
ATOM	781	O	MET A 129	10.999	59.050	8.134	1.00	47.14	O
ATOM	782	N	THR A 130	9.058	59.988	8.771	1.00	47.16	N
ATOM	783	CA	THR A 130	9.326	60.925	7.720	1.00	46.45	C
ATOM	784	CB	THR A 130	8.044	61.678	7.297	1.00	46.69	C
ATOM	785	OG1	THR A 130	8.032	63.004	7.800	1.00	47.34	O
ATOM	786	CG2	THR A 130	6.718	60.941	7.931	1.00	51.08	C
ATOM	787	C	THR A 130	10.469	61.838	7.944	1.00	46.23	C
ATOM	788	O	THR A 130	10.916	62.453	7.011	1.00	50.53	O
ATOM	789	N	LEU A 131	10.970	62.018	9.102	1.00	44.22	N
ATOM	790	CA	LEU A 131	12.052	62.910	9.278	1.00	42.71	C
ATOM	791	CB	LEU A 131	11.953	63.354	10.721	1.00	44.96	C
ATOM	792	CG	LEU A 131	11.361	64.756	10.835	1.00	51.83	C
ATOM	793	CD1	LEU A 131	11.258	65.289	12.278	1.00	56.37	C
ATOM	794	CD2	LEU A 131	12.331	65.593	10.129	1.00	54.03	C
ATOM	795	C	LEU A 131	13.464	62.308	9.098	1.00	43.58	C
ATOM	796	O	LEU A 131	14.590	62.978	9.249	1.00	45.72	O
ATOM	797	N	ARG A 132	13.500	61.036	8.875	1.00	42.33	N
ATOM	798	CA	ARG A 132	14.780	60.323	8.571	1.00	39.96	C
ATOM	799	CB	ARG A 132	14.423	58.895	8.187	1.00	38.15	C
ATOM	800	CG	ARG A 132	13.739	58.139	9.302	1.00	44.43	C
ATOM	801	CD	ARG A 132	13.279	56.759	8.968	1.00	51.37	C
ATOM	802	NE	ARG A 132	12.655	56.960	7.680	1.00	64.58	N
ATOM	803	CZ	ARG A 132	11.863	56.047	7.048	1.00	70.97	C
ATOM	804	NH1	ARG A 132	11.572	54.866	7.657	1.00	73.05	N
ATOM	805	NH2	ARG A 132	11.350	56.335	5.849	1.00	60.49	N
ATOM	806	C	ARG A 132	15.371	60.965	7.335	1.00	38.80	C
ATOM	807	O	ARG A 132	14.713	61.514	6.542	1.00	39.47	O
ATOM	808	N	ASN A 133	16.653	60.848	7.130	1.00	39.05	N
ATOM	809	CA	ASN A 133	17.361	61.551	6.069	1.00	38.18	C
ATOM	810	CB	ASN A 133	18.780	61.167	5.936	1.00	33.17	C
ATOM	811	CG	ASN A 133	19.526	62.103	5.119	1.00	35.90	C
ATOM	812	OD1	ASN A 133	20.364	61.699	4.454	1.00	56.30	O
ATOM	813	ND2	ASN A 133	19.251	63.396	5.114	1.00	42.45	N
ATOM	814	C	ASN A 133	16.704	61.282	4.698	1.00	41.56	C
ATOM	815	O	ASN A 133	16.598	62.220	3.820	1.00	37.70	O
ATOM	816	N	PHE A 134	16.321	60.023	4.545	1.00	43.09	N
ATOM	817	CA	PHE A 134	15.720	59.742	3.329	1.00	47.04	C
ATOM	818	CB	PHE A 134	16.470	58.697	2.651	1.00	47.35	C
ATOM	819	CG	PHE A 134	17.707	59.170	1.927	1.00	49.07	C
ATOM	820	CD1	PHE A 134	17.578	59.903	0.770	1.00	40.18	C
ATOM	821	CE1	PHE A 134	18.697	60.360	0.092	1.00	52.83	C
ATOM	822	CZ	PHE A 134	20.032	60.065	0.559	1.00	47.26	C
ATOM	823	CE2	PHE A 134	20.169	59.280	1.704	1.00	51.58	C
ATOM	824	CD2	PHE A 134	19.019	58.823	2.390	1.00	43.85	C
ATOM	825	C	PHE A 134	14.268	59.328	3.407	1.00	48.91	C
ATOM	826	O	PHE A 134	13.762	58.647	2.540	1.00	50.31	O
ATOM	827	N	GLY A 135	13.538	59.776	4.404	1.00	48.73	N
ATOM	828	CA	GLY A 135	12.207	59.200	4.542	1.00	47.26	C
ATOM	829	C	GLY A 135	11.139	59.880	3.779	1.00	47.25	C
ATOM	830	O	GLY A 135	10.077	59.826	4.112	1.00	43.01	O
ATOM	831	N	MET A 136	11.473	60.508	2.691	1.00	52.47	N
ATOM	832	CA	MET A 136	10.349	61.113	1.959	1.00	51.30	C
ATOM	833	CB	MET A 136	9.536	62.038	2.861	1.00	46.66	C
ATOM	834	CG	MET A 136	10.055	63.297	2.987	1.00	42.37	C

109/514

Figure 2

ATOM	835	SD	MET	A	136	9.383	64.386	4.525	1.00	51.35	S
ATOM	836	CE	MET	A	136	9.844	65.934	4.249	1.00	45.33	C
ATOM	837	C	MET	A	136	10.766	61.797	0.681	1.00	53.33	C
ATOM	838	O	MET	A	136	10.952	63.065	0.554	1.00	57.25	O
ATOM	839	N	GLY	A	137	10.917	60.987	-0.342	1.00	53.83	N
ATOM	840	CA	GLY	A	137	11.234	61.664	-1.599	1.00	53.10	C
ATOM	841	C	GLY	A	137	12.562	61.412	-2.080	1.00	52.59	C
ATOM	842	O	GLY	A	137	13.335	60.706	-1.559	1.00	49.60	O
ATOM	843	N	LYS	A	138	12.822	62.029	-3.154	1.00	54.22	N
ATOM	844	CA	LYS	A	138	14.210	61.895	-3.609	1.00	56.11	C
ATOM	845	CB	LYS	A	138	14.215	61.791	-5.197	1.00	58.55	C
ATOM	846	CG	LYS	A	138	13.185	60.647	-5.790	1.00	63.64	C
ATOM	847	CD	LYS	A	138	13.682	60.039	-7.233	1.00	72.39	C
ATOM	848	CE	LYS	A	138	13.001	60.532	-8.564	1.00	74.28	C
ATOM	849	NZ	LYS	A	138	13.280	62.104	-9.196	1.00	77.24	N
ATOM	850	C	LYS	A	138	15.112	63.022	-3.105	1.00	51.33	C
ATOM	851	O	LYS	A	138	16.247	63.074	-3.517	1.00	56.34	O
ATOM	852	N	ARG	A	139	14.634	63.932	-2.319	1.00	44.22	N
ATOM	853	CA	ARG	A	139	15.444	64.938	-1.785	1.00	40.79	C
ATOM	854	CB	ARG	A	139	14.779	66.278	-1.977	1.00	42.37	C
ATOM	855	CG	ARG	A	139	15.556	67.555	-1.940	1.00	43.92	C
ATOM	856	CD	ARG	A	139	14.578	68.677	-1.690	1.00	49.20	C
ATOM	857	NE	ARG	A	139	15.070	70.055	-1.478	1.00	47.80	N
ATOM	858	CZ	ARG	A	139	16.120	70.515	-1.920	1.00	41.20	C
ATOM	859	NH1	ARG	A	139	16.524	71.685	-1.706	1.00	45.04	N
ATOM	860	NH2	ARG	A	139	16.805	69.763	-2.594	1.00	58.03	N
ATOM	861	C	ARG	A	139	15.754	64.588	-0.324	1.00	38.75	C
ATOM	862	O	ARG	A	139	14.978	64.141	0.447	1.00	43.67	O
ATOM	863	N	SER	A	140	16.943	64.679	0.104	1.00	37.28	N
ATOM	864	CA	SER	A	140	17.219	64.286	1.501	1.00	35.67	C
ATOM	865	CB	SER	A	140	18.634	63.650	1.617	1.00	35.74	C
ATOM	866	OG	SER	A	140	19.488	64.702	1.187	1.00	30.08	O
ATOM	867	C	SER	A	140	17.123	65.420	2.511	1.00	32.49	C
ATOM	868	O	SER	A	140	17.213	66.672	2.134	1.00	30.29	O
ATOM	869	N	ILE	A	141	16.910	65.036	3.787	1.00	26.05	N
ATOM	870	CA	ILE	A	141	16.912	66.139	4.800	1.00	24.38	C
ATOM	871	CB	ILE	A	141	16.838	65.542	6.172	1.00	24.43	C
ATOM	872	CG1	ILE	A	141	15.492	65.097	6.594	1.00	26.46	C
ATOM	873	CD1	ILE	A	141	14.278	66.133	6.468	1.00	28.01	C
ATOM	874	CG2	ILE	A	141	17.292	66.385	7.210	1.00	28.89	C
ATOM	875	C	ILE	A	141	18.174	66.936	4.631	1.00	25.95	C
ATOM	876	O	ILE	A	141	18.299	68.219	4.630	1.00	24.52	O
ATOM	877	N	GLU	A	142	19.296	66.194	4.512	1.00	31.90	N
ATOM	878	CA	GLU	A	142	20.626	66.847	4.396	1.00	30.87	C
ATOM	879	CB	GLU	A	142	21.563	65.826	4.259	1.00	34.12	C
ATOM	880	CG	GLU	A	142	22.973	66.341	4.355	1.00	38.74	C
ATOM	881	CD	GLU	A	142	24.096	65.310	4.512	1.00	42.43	C
ATOM	882	OE1	GLU	A	142	23.970	64.082	4.878	1.00	43.26	O
ATOM	883	OE2	GLU	A	142	25.117	65.877	4.158	1.00	50.73	O
ATOM	884	C	GLU	A	142	20.818	67.763	3.346	1.00	31.02	C
ATOM	885	O	GLU	A	142	21.431	68.819	3.313	1.00	29.01	O
ATOM	886	N	ASP	A	143	20.196	67.390	2.294	1.00	34.59	N
ATOM	887	CA	ASP	A	143	20.238	68.255	1.203	1.00	33.78	C
ATOM	888	CB	ASP	A	143	19.503	67.511	0.175	1.00	42.01	C
ATOM	889	CG	ASP	A	143	20.355	67.409	-1.157	1.00	48.13	C
ATOM	890	OD1	ASP	A	143	20.648	68.634	-1.672	1.00	45.44	O
ATOM	891	OD2	ASP	A	143	20.631	66.142	-1.552	1.00	60.43	O
ATOM	892	C	ASP	A	143	19.665	69.492	1.437	1.00	32.19	C
ATOM	893	O	ASP	A	143	20.175	70.611	1.105	1.00	35.16	O
ATOM	894	N	ARG	A	144	18.456	69.468	1.978	1.00	29.46	N
ATOM	895	CA	ARG	A	144	17.820	70.613	2.469	1.00	26.61	C
ATOM	896	CB	ARG	A	144	16.736	70.091	3.274	1.00	30.33	C
ATOM	897	CG	ARG	A	144	15.605	69.388	2.318	1.00	35.39	C
ATOM	898	CD	ARG	A	144	14.293	69.031	3.068	1.00	37.49	C
ATOM	899	NE	ARG	A	144	13.432	68.077	2.418	1.00	41.67	N
ATOM	900	CZ	ARG	A	144	12.650	68.385	1.357	1.00	49.73	C
ATOM	901	NH1	ARG	A	144	12.526	69.597	0.784	1.00	48.00	N
ATOM	902	NH2	ARG	A	144	11.959	67.418	0.922	1.00	50.73	N
ATOM	903	C	ARG	A	144	18.730	71.352	3.415	1.00	24.52	C
ATOM	904	O	ARG	A	144	18.966	72.510	3.320	1.00	24.52	O
ATOM	905	N	VAL	A	145	19.375	70.706	4.336	1.00	22.81	N
ATOM	906	CA	VAL	A	145	20.122	71.660	5.186	1.00	20.38	C
ATOM	907	CB	VAL	A	145	20.481	70.928	6.523	1.00	22.04	C
ATOM	908	CG1	VAL	A	145	21.241	71.816	7.486	1.00	29.12	C
ATOM	909	CG2	VAL	A	145	19.247	70.351	7.234	1.00	16.30	C
ATOM	910	C	VAL	A	145	21.264	72.204	4.430	1.00	21.39	C

[illegible]

Figure 2

ATOM	987	CB	GLU	A	155	21.510	85.952	4.131	1.00	46.48	C
ATOM	988	CG	GLU	A	155	20.290	85.984	3.241	1.00	54.87	C
ATOM	989	CD	GLU	A	155	19.926	87.336	2.793	1.00	49.73	C
ATOM	990	OE1	GLU	A	155	19.947	87.608	1.572	1.00	52.59	O
ATOM	991	OE2	GLU	A	155	19.707	88.127	3.742	1.00	59.40	O
ATOM	992	C	GLU	A	155	23.786	87.097	4.349	1.00	44.76	C
ATOM	993	O	GLU	A	155	23.728	88.215	4.637	1.00	47.26	O
ATOM	994	N	LEU	A	156	24.660	86.344	4.891	1.00	43.35	N
ATOM	995	CA	LEU	A	156	25.584	86.910	5.870	1.00	42.83	C
ATOM	996	CB	LEU	A	156	26.270	85.841	6.574	1.00	42.03	C
ATOM	997	CG	LEU	A	156	25.632	85.237	7.733	1.00	40.19	C
ATOM	998	CD1	LEU	A	156	26.387	84.089	8.195	1.00	43.99	C
ATOM	999	CD2	LEU	A	156	25.618	86.350	8.803	1.00	49.15	C
ATOM	1000	C	LEU	A	156	26.534	87.672	5.075	1.00	43.59	C
ATOM	1001	O	LEU	A	156	27.176	88.637	5.476	1.00	41.36	O
ATOM	1002	N	ARG	A	157	26.645	87.270	3.864	1.00	46.23	N
ATOM	1003	CA	ARG	A	157	27.627	88.033	3.006	1.00	48.59	C
ATOM	1004	CB	ARG	A	157	27.965	87.228	1.772	1.00	48.16	C
ATOM	1005	CG	ARG	A	157	29.352	87.367	1.430	1.00	54.23	C
ATOM	1006	CD	ARG	A	157	29.687	86.977	0.005	1.00	55.16	C
ATOM	1007	NE	ARG	A	157	29.696	85.527	-0.098	1.00	53.51	N
ATOM	1008	CZ	ARG	A	157	30.751	84.821	0.270	1.00	50.39	C
ATOM	1009	NH1	ARG	A	157	31.775	85.423	0.727	1.00	51.40	N
ATOM	1010	NH2	ARG	A	157	30.753	83.522	0.224	1.00	54.97	N
ATOM	1011	C	ARG	A	157	27.079	89.415	2.634	1.00	48.52	C
ATOM	1012	O	ARG	A	157	27.710	90.400	2.423	1.00	46.20	O
ATOM	1013	N	LYS	A	158	25.843	89.506	2.560	1.00	50.00	N
ATOM	1014	CA	LYS	A	158	25.284	90.773	2.242	1.00	49.97	C
ATOM	1015	CB	LYS	A	158	23.761	90.652	2.053	1.00	48.11	C
ATOM	1016	CG	LYS	A	158	23.364	90.117	0.675	1.00	57.42	C
ATOM	1017	CD	LYS	A	158	21.699	89.971	0.538	1.00	65.02	C
ATOM	1018	CE	LYS	A	158	21.241	89.205	-0.736	1.00	69.17	C
ATOM	1019	NZ	LYS	A	158	21.664	89.921	-2.170	1.00	73.75	N
ATOM	1020	C	LYS	A	158	25.558	91.708	3.355	1.00	50.11	C
ATOM	1021	O	LYS	A	158	25.570	92.919	3.115	1.00	54.16	O
ATOM	1022	N	THR	A	159	25.808	91.254	4.575	1.00	49.61	N
ATOM	1023	CA	THR	A	159	26.056	92.278	5.620	1.00	48.61	C
ATOM	1024	CB	THR	A	159	26.057	91.645	6.900	1.00	49.69	C
ATOM	1025	OG1	THR	A	159	27.383	91.207	7.311	1.00	56.21	O
ATOM	1026	CG2	THR	A	159	25.113	90.471	6.977	1.00	50.03	C
ATOM	1027	C	THR	A	159	27.319	93.070	5.440	1.00	48.52	C
ATOM	1028	O	THR	A	159	27.669	93.902	6.306	1.00	47.53	O
ATOM	1029	N	LYS	A	160	28.019	92.856	4.295	1.00	51.54	N
ATOM	1030	CA	LYS	A	160	29.226	93.652	3.978	1.00	54.62	C
ATOM	1031	CB	LYS	A	160	28.844	95.013	3.405	1.00	56.43	C
ATOM	1032	CG	LYS	A	160	28.908	95.124	1.821	1.00	62.29	C
ATOM	1033	CD	LYS	A	160	28.138	96.441	1.197	1.00	75.82	C
ATOM	1034	CE	LYS	A	160	28.942	97.788	1.513	1.00	81.19	C
ATOM	1035	NZ	LYS	A	160	29.633	98.594	0.343	1.00	75.08	N
ATOM	1036	C	LYS	A	160	30.161	93.920	5.210	1.00	57.59	C
ATOM	1037	O	LYS	A	160	30.602	95.019	5.532	1.00	59.15	O
ATOM	1038	N	ALA	A	161	30.475	92.867	5.949	1.00	59.31	N
ATOM	1039	CA	ALA	A	161	31.426	93.005	7.033	1.00	57.73	C
ATOM	1040	CB	ALA	A	161	32.810	93.137	6.429	1.00	58.14	C
ATOM	1041	C	ALA	A	161	31.217	94.136	7.919	1.00	57.55	C
ATOM	1042	O	ALA	A	161	32.097	94.828	8.220	1.00	56.49	O
ATOM	1043	N	SER	A	162	30.066	94.311	8.439	1.00	59.39	N
ATOM	1044	CA	SER	A	162	29.937	95.457	9.358	1.00	61.25	C
ATOM	1045	CB	SER	A	162	29.158	96.440	8.542	1.00	64.66	C
ATOM	1046	OG	SER	A	162	28.241	95.584	7.760	1.00	66.38	O
ATOM	1047	C	SER	A	162	28.959	95.108	10.426	1.00	60.52	C
ATOM	1048	O	SER	A	162	28.083	94.292	10.201	1.00	60.89	O
ATOM	1049	N	PRO	A	163	28.990	95.799	11.541	1.00	58.45	N
ATOM	1050	CA	PRO	A	163	28.288	95.375	12.743	1.00	55.45	C
ATOM	1051	CB	PRO	A	163	28.276	96.645	13.545	1.00	56.72	C
ATOM	1052	CG	PRO	A	163	29.530	97.232	13.164	1.00	57.10	C
ATOM	1053	CD	PRO	A	163	29.660	97.051	11.752	1.00	56.21	C
ATOM	1054	C	PRO	A	163	26.976	94.958	12.390	1.00	51.92	C
ATOM	1055	O	PRO	A	163	26.336	95.634	11.584	1.00	54.82	O
ATOM	1056	N	CYS	A	164	26.539	93.892	13.019	1.00	47.71	N
ATOM	1057	CA	CYS	A	164	25.245	93.349	12.810	1.00	45.02	C
ATOM	1058	CB	CYS	A	164	25.301	92.563	11.507	1.00	46.13	C
ATOM	1059	SG	CYS	A	164	25.065	90.893	11.683	1.00	47.08	S
ATOM	1060	C	CYS	A	164	24.870	92.435	13.898	1.00	41.52	C
ATOM	1061	O	CYS	A	164	25.667	91.779	14.409	1.00	41.17	O
ATOM	1062	N	ASP	A	165	23.619	92.340	14.204	1.00	40.80	N

Figure 2

ATOM	1063	CA	ASP	A	165	23.044	91.532	15.282	1.00	39.28	C
ATOM	1064	CB	ASP	A	165	21.912	92.288	16.009	1.00	35.83	C
ATOM	1065	CG	ASP	A	165	21.085	91.389	16.810	1.00	39.42	C
ATOM	1066	OD1	ASP	A	165	20.114	91.731	17.572	1.00	40.84	O
ATOM	1067	OD2	ASP	A	165	21.280	90.181	16.652	1.00	40.72	O
ATOM	1068	C	ASP	A	165	22.479	90.331	14.608	1.00	38.80	C
ATOM	1069	O	ASP	A	165	21.412	90.464	14.033	1.00	43.10	O
ATOM	1070	N	PRO	A	166	23.079	89.157	14.758	1.00	35.00	N
ATOM	1071	CA	PRO	A	166	22.757	87.940	13.985	1.00	28.88	C
ATOM	1072	CB	PRO	A	166	23.998	87.099	14.241	1.00	30.69	C
ATOM	1073	CG	PRO	A	166	24.294	87.442	15.659	1.00	31.36	C
ATOM	1074	CD	PRO	A	166	24.158	88.911	15.703	1.00	33.89	C
ATOM	1075	C	PRO	A	166	21.501	87.424	14.306	1.00	24.16	C
ATOM	1076	O	PRO	A	166	20.917	86.635	13.654	1.00	29.79	O
ATOM	1077	N	THR	A	167	20.866	87.918	15.312	1.00	23.96	N
ATOM	1078	CA	THR	A	167	19.567	87.237	15.701	1.00	23.76	C
ATOM	1079	CB	THR	A	167	18.906	88.046	16.668	1.00	24.19	C
ATOM	1080	OG1	THR	A	167	19.847	88.646	17.558	1.00	25.38	O
ATOM	1081	CG2	THR	A	167	17.786	87.427	17.335	1.00	17.74	C
ATOM	1082	C	THR	A	167	18.507	86.958	14.716	1.00	27.64	C
ATOM	1083	O	THR	A	167	17.809	85.942	14.790	1.00	34.82	O
ATOM	1084	N	PHE	A	168	18.305	87.849	13.788	1.00	30.27	N
ATOM	1085	CA	PHE	A	168	17.285	87.630	12.780	1.00	33.77	C
ATOM	1086	CB	PHE	A	168	16.723	89.012	12.160	1.00	34.18	C
ATOM	1087	CG	PHE	A	168	15.886	88.754	11.008	1.00	29.32	C
ATOM	1088	CD1	PHE	A	168	16.438	88.812	9.695	1.00	39.21	C
ATOM	1089	CE1	PHE	A	168	15.709	88.606	8.503	1.00	29.36	C
ATOM	1090	CZ	PHE	A	168	14.362	88.230	8.715	1.00	31.04	C
ATOM	1091	CE2	PHE	A	168	13.830	88.156	9.946	1.00	35.36	C
ATOM	1092	CD2	PHE	A	168	14.636	88.447	11.160	1.00	30.54	C
ATOM	1093	C	PHE	A	168	17.778	86.645	11.628	1.00	34.62	C
ATOM	1094	O	PHE	A	168	17.119	85.719	11.276	1.00	31.07	O
ATOM	1095	N	ILE	A	169	18.950	86.883	11.078	1.00	35.46	N
ATOM	1096	CA	ILE	A	169	19.366	85.981	9.966	1.00	34.33	C
ATOM	1097	CB	ILE	A	169	20.659	86.359	9.688	1.00	35.54	C
ATOM	1098	CG1	ILE	A	169	20.607	87.678	8.956	1.00	38.75	C
ATOM	1099	CD1	ILE	A	169	21.877	88.365	8.634	1.00	42.47	C
ATOM	1100	CG2	ILE	A	169	21.130	85.458	8.844	1.00	44.11	C
ATOM	1101	C	ILE	A	169	19.551	84.543	10.469	1.00	32.19	C
ATOM	1102	O	ILE	A	169	18.957	83.798	10.028	1.00	32.70	O
ATOM	1103	N	LEU	A	170	20.223	84.236	11.531	1.00	30.57	N
ATOM	1104	CA	LEU	A	170	20.238	82.915	12.118	1.00	29.50	C
ATOM	1105	CB	LEU	A	170	21.098	82.998	13.411	1.00	27.97	C
ATOM	1106	CG	LEU	A	170	22.549	82.941	13.480	1.00	22.75	C
ATOM	1107	CD1	LEU	A	170	23.148	83.195	12.393	1.00	25.42	C
ATOM	1108	CD2	LEU	A	170	23.037	83.727	14.523	1.00	24.67	C
ATOM	1109	C	LEU	A	170	18.813	82.551	12.509	1.00	33.81	C
ATOM	1110	O	LEU	A	170	18.577	81.302	12.822	1.00	38.38	O
ATOM	1111	N	GLY	A	171	17.744	83.354	12.730	1.00	36.55	N
ATOM	1112	CA	GLY	A	171	16.521	82.575	13.005	1.00	34.15	C
ATOM	1113	C	GLY	A	171	15.933	82.208	11.694	1.00	34.19	C
ATOM	1114	O	GLY	A	171	15.179	81.199	11.606	1.00	35.66	O
ATOM	1115	N	CYS	A	172	16.242	82.952	10.589	1.00	34.40	N
ATOM	1116	CA	CYS	A	172	15.524	82.493	9.356	1.00	36.16	C
ATOM	1117	CB	CYS	A	172	15.759	83.516	8.279	1.00	39.14	C
ATOM	1118	SG	CYS	A	172	15.135	85.191	8.722	1.00	44.48	S
ATOM	1119	C	CYS	A	172	15.942	81.091	8.929	1.00	37.47	C
ATOM	1120	O	CYS	A	172	15.055	80.216	8.640	1.00	41.23	O
ATOM	1121	N	ALA	A	173	17.240	80.749	8.894	1.00	32.82	N
ATOM	1122	CA	ALA	A	173	17.599	79.426	8.452	1.00	27.73	C
ATOM	1123	CB	ALA	A	173	18.947	79.366	8.516	1.00	30.25	C
ATOM	1124	C	ALA	A	173	16.965	78.220	9.091	1.00	26.74	C
ATOM	1125	O	ALA	A	173	16.348	77.447	8.396	1.00	31.04	O
ATOM	1126	N	PRO	A	174	16.947	78.011	10.404	1.00	26.41	N
ATOM	1127	CA	PRO	A	174	16.355	76.843	10.953	1.00	23.70	C
ATOM	1128	CB	PRO	A	174	16.427	77.012	12.341	1.00	19.80	C
ATOM	1129	CG	PRO	A	174	17.454	77.929	12.546	1.00	26.97	C
ATOM	1130	CD	PRO	A	174	17.400	78.936	11.416	1.00	27.65	C
ATOM	1131	C	PRO	A	174	14.870	76.914	10.583	1.00	28.79	C
ATOM	1132	O	PRO	A	174	14.180	75.911	10.226	1.00	28.12	O
ATOM	1133	N	CYS	A	175	14.327	78.093	10.529	1.00	30.80	N
ATOM	1134	CA	CYS	A	175	12.877	78.092	10.201	1.00	33.70	C
ATOM	1135	CB	CYS	A	175	12.373	79.601	10.260	1.00	37.06	C
ATOM	1136	SG	CYS	A	175	10.492	79.505	9.885	1.00	42.71	S
ATOM	1137	C	CYS	A	175	12.622	77.664	8.766	1.00	32.75	C
ATOM	1138	O	CYS	A	175	11.676	76.915	8.357	1.00	29.24	O

113/514

Figure 2

ATOM	1139	N	ASN A 176	13.557	78.119	7.925	1.00	33.21	N
ATOM	1140	CA	ASN A 176	13.496	77.725	6.482	1.00	31.80	C
ATOM	1141	CB	ASN A 176	14.408	78.532	5.729	1.00	33.26	C
ATOM	1142	CG	ASN A 176	13.811	79.139	4.450	1.00	34.54	C
ATOM	1143	OD1	ASN A 176	12.761	78.801	4.122	1.00	32.00	O
ATOM	1144	ND2	ASN A 176	14.550	80.043	3.769	1.00	28.09	N
ATOM	1145	C	ASN A 176	13.688	76.285	6.252	1.00	26.89	C
ATOM	1146	O	ASN A 176	13.119	75.719	5.328	1.00	27.13	O
ATOM	1147	N	VAL A 177	14.318	75.659	7.157	1.00	24.18	N
ATOM	1148	CA	VAL A 177	14.487	74.186	6.944	1.00	25.56	C
ATOM	1149	CB	VAL A 177	15.517	73.716	7.919	1.00	27.20	C
ATOM	1150	CG1	VAL A 177	15.713	72.285	7.853	1.00	28.01	C
ATOM	1151	CG2	VAL A 177	16.828	74.361	7.790	1.00	21.86	C
ATOM	1152	C	VAL A 177	13.302	73.458	7.177	1.00	27.10	C
ATOM	1153	O	VAL A 177	12.963	72.391	6.587	1.00	30.02	O
ATOM	1154	N	ILE A 178	12.542	73.931	8.126	1.00	31.57	N
ATOM	1155	CA	ILE A 178	11.226	73.326	8.458	1.00	31.53	C
ATOM	1156	CB	ILE A 178	10.785	73.856	9.818	1.00	34.29	C
ATOM	1157	CG1	ILE A 178	11.307	72.936	10.930	1.00	36.70	C
ATOM	1158	CD1	ILE A 178	12.587	73.128	11.278	1.00	41.48	C
ATOM	1159	CG2	ILE A 178	9.278	73.409	10.108	1.00	38.15	C
ATOM	1160	C	ILE A 178	10.274	73.674	7.292	1.00	29.34	C
ATOM	1161	O	ILE A 178	9.639	72.741	6.697	1.00	30.35	O
ATOM	1162	N	CYS A 179	10.228	74.928	6.882	1.00	28.37	N
ATOM	1163	CA	CYS A 179	9.453	75.241	5.631	1.00	30.25	C
ATOM	1164	CB	CYS A 179	9.806	76.544	5.046	1.00	30.45	C
ATOM	1165	SG	CYS A 179	9.083	77.790	6.118	1.00	35.38	S
ATOM	1166	C	CYS A 179	9.761	74.250	4.514	1.00	30.24	C
ATOM	1167	O	CYS A 179	8.865	73.645	3.882	1.00	30.59	O
ATOM	1168	N	SER A 180	11.018	73.998	4.260	1.00	29.36	N
ATOM	1169	CA	SER A 180	11.256	73.052	3.156	1.00	29.42	C
ATOM	1170	CB	SER A 180	12.721	73.272	2.664	1.00	31.43	C
ATOM	1171	OG	SER A 180	13.339	72.031	2.038	1.00	40.00	O
ATOM	1172	C	SER A 180	10.901	71.732	3.534	1.00	29.04	C
ATOM	1173	O	SER A 180	10.558	70.926	2.684	1.00	33.39	O
ATOM	1174	N	ILE A 181	10.947	71.319	4.796	1.00	31.74	N
ATOM	1175	CA	ILE A 181	10.687	69.867	5.024	1.00	29.50	C
ATOM	1176	CB	ILE A 181	11.104	69.563	6.416	1.00	29.61	C
ATOM	1177	CG1	ILE A 181	12.557	69.322	6.502	1.00	27.96	C
ATOM	1178	CD1	ILE A 181	12.970	68.826	7.891	1.00	33.68	C
ATOM	1179	CG2	ILE A 181	10.276	68.388	7.057	1.00	28.36	C
ATOM	1180	C	ILE A 181	9.196	69.737	4.941	1.00	33.79	C
ATOM	1181	O	ILE A 181	8.699	68.674	4.614	1.00	32.15	O
ATOM	1182	N	ILE A 182	8.404	70.788	5.377	1.00	35.53	N
ATOM	1183	CA	ILE A 182	6.888	70.619	5.380	1.00	34.06	C
ATOM	1184	CB	ILE A 182	6.199	71.619	6.358	1.00	37.58	C
ATOM	1185	CG1	ILE A 182	6.750	71.692	7.827	1.00	36.18	C
ATOM	1186	CD1	ILE A 182	6.424	70.508	8.506	1.00	36.82	C
ATOM	1187	CG2	ILE A 182	4.627	71.564	6.205	1.00	34.23	C
ATOM	1188	C	ILE A 182	6.315	71.021	4.003	1.00	33.08	C
ATOM	1189	O	ILE A 182	5.364	70.398	3.648	1.00	32.61	O
ATOM	1190	N	PHE A 183	6.794	72.073	3.313	1.00	31.46	N
ATOM	1191	CA	PHE A 183	6.364	72.446	2.004	1.00	33.85	C
ATOM	1192	CB	PHE A 183	6.372	73.874	1.940	1.00	34.76	C
ATOM	1193	CG	PHE A 183	5.630	74.624	3.130	1.00	26.97	C
ATOM	1194	CD1	PHE A 183	6.079	75.804	3.613	1.00	32.08	C
ATOM	1195	CE1	PHE A 183	5.468	76.445	4.753	1.00	37.47	C
ATOM	1196	CZ	PHE A 183	4.419	75.859	5.415	1.00	31.82	C
ATOM	1197	CE2	PHE A 183	4.002	74.666	4.932	1.00	37.23	C
ATOM	1198	CD2	PHE A 183	4.621	74.093	3.763	1.00	37.84	C
ATOM	1199	C	PHE A 183	7.266	71.989	0.793	1.00	41.70	C
ATOM	1200	O	PHE A 183	6.776	72.141	-0.255	1.00	45.69	O
ATOM	1201	N	HIS A 184	8.531	71.405	0.898	1.00	47.88	N
ATOM	1202	CA	HIS A 184	9.323	70.980	-0.191	1.00	49.67	C
ATOM	1203	CB	HIS A 184	8.576	70.254	-1.243	1.00	53.54	C
ATOM	1204	CG	HIS A 184	9.469	69.301	-1.998	1.00	63.25	C
ATOM	1205	ND1	HIS A 184	9.588	69.345	-3.394	1.00	73.83	N
ATOM	1206	CE1	HIS A 184	10.468	68.411	-3.798	1.00	73.38	C
ATOM	1207	NE2	HIS A 184	10.931	67.785	-2.714	1.00	73.41	N
ATOM	1208	CD2	HIS A 184	10.327	68.316	-1.568	1.00	64.23	C
ATOM	1209	C	HIS A 184	10.106	72.000	-0.758	1.00	48.45	C
ATOM	1210	O	HIS A 184	10.842	71.732	-1.621	1.00	53.79	O
ATOM	1211	N	LYS A 185	10.105	73.160	-0.217	1.00	47.34	N
ATOM	1212	CA	LYS A 185	10.882	74.191	-0.831	1.00	49.42	C
ATOM	1213	CB	LYS A 185	10.183	74.560	-2.057	1.00	51.02	C
ATOM	1214	CG	LYS A 185	10.503	75.769	-2.708	1.00	59.44	C

114/514

Figure 2

ATOM	1215	CD	LYS	A	185	9.192	76.156	-3.801	1.00	65.19	C
ATOM	1216	CE	LYS	A	185	8.763	77.730	-3.690	1.00	67.36	C
ATOM	1217	NZ	LYS	A	185	8.193	78.241	-2.386	1.00	65.39	N
ATOM	1218	C	LYS	A	185	11.125	75.378	0.033	1.00	49.82	C
ATOM	1219	O	LYS	A	185	10.216	76.006	0.575	1.00	55.03	O
ATOM	1220	N	ARG	A	186	12.345	75.777	0.249	1.00	47.63	N
ATOM	1221	CA	ARG	A	186	12.557	76.949	1.019	1.00	42.16	C
ATOM	1222	CB	ARG	A	186	14.007	77.250	1.200	1.00	46.08	C
ATOM	1223	CG	ARG	A	186	14.616	77.613	-0.013	1.00	42.30	C
ATOM	1224	CD	ARG	A	186	15.977	77.850	0.049	1.00	43.37	C
ATOM	1225	NE	ARG	A	186	16.391	78.658	1.150	1.00	45.33	N
ATOM	1226	CZ	ARG	A	186	16.733	79.835	1.087	1.00	49.22	C
ATOM	1227	NH1	ARG	A	186	16.605	80.376	-0.031	1.00	46.14	N
ATOM	1228	NH2	ARG	A	186	17.163	80.449	2.148	1.00	48.03	N
ATOM	1229	C	ARG	A	186	11.978	78.097	0.275	1.00	44.66	C
ATOM	1230	O	ARG	A	186	11.601	78.018	-0.899	1.00	43.42	O
ATOM	1231	N	PHE	A	187	11.968	79.224	1.024	1.00	45.01	N
ATOM	1232	CA	PHE	A	187	11.424	80.544	0.713	1.00	42.80	C
ATOM	1233	CB	PHE	A	187	10.604	81.007	1.911	1.00	44.75	C
ATOM	1234	CG	PHE	A	187	9.305	80.404	2.055	1.00	41.13	C
ATOM	1235	CD1	PHE	A	187	8.886	79.661	3.111	1.00	39.52	C
ATOM	1236	CE1	PHE	A	187	7.541	79.258	3.184	1.00	44.65	C
ATOM	1237	CZ	PHE	A	187	6.616	79.673	2.193	1.00	42.39	C
ATOM	1238	CE2	PHE	A	187	7.076	80.405	1.188	1.00	38.82	C
ATOM	1239	CD2	PHE	A	187	8.404	80.755	1.128	1.00	42.10	C
ATOM	1240	C	PHE	A	187	12.495	81.510	0.678	1.00	44.42	C
ATOM	1241	O	PHE	A	187	13.246	81.534	1.624	1.00	46.91	O
ATOM	1242	N	ASP	A	188	12.601	82.327	-0.331	1.00	47.91	N
ATOM	1243	CA	ASP	A	188	13.553	83.385	-0.248	1.00	49.78	C
ATOM	1244	CB	ASP	A	188	13.293	84.247	-1.315	1.00	54.07	C
ATOM	1245	CG	ASP	A	188	14.331	85.214	-1.455	1.00	60.46	C
ATOM	1246	OD1	ASP	A	188	14.590	86.031	-0.575	1.00	72.40	O
ATOM	1247	OD2	ASP	A	188	15.042	85.168	-2.469	1.00	78.74	O
ATOM	1248	C	ASP	A	188	13.303	84.160	1.026	1.00	48.41	C
ATOM	1249	O	ASP	A	188	12.184	84.407	1.380	1.00	48.05	O
ATOM	1250	N	TYR	A	189	14.358	84.537	1.722	1.00	49.36	N
ATOM	1251	CA	TYR	A	189	14.260	85.208	3.016	1.00	50.80	C
ATOM	1252	CB	TYR	A	189	15.653	85.511	3.674	1.00	49.94	C
ATOM	1253	CG	TYR	A	189	16.468	84.275	4.112	1.00	45.98	C
ATOM	1254	CD1	TYR	A	189	17.845	84.245	4.156	1.00	44.73	C
ATOM	1255	CE1	TYR	A	189	18.554	83.109	4.541	1.00	45.95	C
ATOM	1256	CZ	TYR	A	189	17.940	82.048	4.829	1.00	46.78	C
ATOM	1257	OH	TYR	A	189	18.869	80.997	5.024	1.00	46.38	O
ATOM	1258	CE2	TYR	A	189	16.583	82.020	4.771	1.00	50.98	C
ATOM	1259	CD2	TYR	A	189	15.850	83.117	4.397	1.00	45.36	C
ATOM	1260	C	TYR	A	189	13.578	86.506	2.850	1.00	53.27	C
ATOM	1261	O	TYR	A	189	13.341	87.428	3.762	1.00	55.25	O
ATOM	1262	N	LYS	A	190	13.299	86.759	1.656	1.00	53.93	N
ATOM	1263	CA	LYS	A	190	12.586	88.022	1.453	1.00	55.64	C
ATOM	1264	CB	LYS	A	190	13.128	88.838	0.314	1.00	58.46	C
ATOM	1265	CG	LYS	A	190	13.807	90.115	0.686	1.00	61.63	C
ATOM	1266	CD	LYS	A	190	14.956	90.331	-0.359	1.00	72.13	C
ATOM	1267	CE	LYS	A	190	14.504	90.188	-1.869	1.00	75.03	C
ATOM	1268	NZ	LYS	A	190	13.830	91.544	-2.501	1.00	63.73	N
ATOM	1269	C	LYS	A	190	11.064	87.796	1.163	1.00	53.56	C
ATOM	1270	O	LYS	A	190	10.373	88.645	1.283	1.00	50.40	O
ATOM	1271	N	ASP	A	191	10.568	86.664	0.771	1.00	49.39	N
ATOM	1272	CA	ASP	A	191	9.137	86.358	0.617	1.00	48.11	C
ATOM	1273	CB	ASP	A	191	9.076	84.901	0.198	1.00	48.98	C
ATOM	1274	CG	ASP	A	191	7.676	84.382	-0.035	1.00	59.42	C
ATOM	1275	OD1	ASP	A	191	7.568	83.471	-1.020	1.00	71.83	O
ATOM	1276	OD2	ASP	A	191	6.627	84.810	0.687	1.00	57.40	O
ATOM	1277	C	ASP	A	191	8.342	86.639	1.770	1.00	49.35	C
ATOM	1278	O	ASP	A	191	8.539	86.189	2.899	1.00	53.98	O
ATOM	1279	N	GLN	A	192	7.370	87.443	1.472	1.00	49.84	N
ATOM	1280	CA	GLN	A	192	6.438	87.799	2.512	1.00	47.76	C
ATOM	1281	CB	GLN	A	192	5.418	88.771	1.891	1.00	48.77	C
ATOM	1282	CG	GLN	A	192	4.564	89.502	2.852	1.00	50.44	C
ATOM	1283	CD	GLN	A	192	5.393	90.428	3.689	1.00	54.79	C
ATOM	1284	OE1	GLN	A	192	6.272	91.216	3.123	1.00	52.34	O
ATOM	1285	NE2	GLN	A	192	5.219	90.272	5.141	1.00	47.68	N
ATOM	1286	C	GLN	A	192	5.748	86.552	3.239	1.00	41.56	C
ATOM	1287	O	GLN	A	192	5.403	86.633	4.326	1.00	38.50	O
ATOM	1288	N	GLN	A	193	5.490	85.487	2.585	1.00	40.18	N
ATOM	1289	CA	GLN	A	193	4.773	84.526	3.335	1.00	43.46	C
ATOM	1290	CB	GLN	A	193	4.480	83.323	2.482	1.00	45.50	C

Figure 2

ATOM	1291	CG	GLN	A	193	3.900	83.387	1.080	1.00	51.86	C
ATOM	1292	CD	GLN	A	193	3.499	81.920	0.499	1.00	61.19	C
ATOM	1293	OE1	GLN	A	193	3.412	80.918	1.255	1.00	54.57	O
ATOM	1294	NE2	GLN	A	193	3.342	81.783	-0.853	1.00	61.97	N
ATOM	1295	C	GLN	A	193	5.688	84.139	4.618	1.00	45.94	C
ATOM	1296	O	GLN	A	193	5.186	84.044	5.808	1.00	47.11	O
ATOM	1297	N	PHE	A	194	6.974	83.983	4.284	1.00	42.76	N
ATOM	1298	CA	PHE	A	194	8.015	83.728	5.053	1.00	38.91	C
ATOM	1299	CB	PHE	A	194	9.389	83.616	4.221	1.00	37.55	C
ATOM	1300	CG	PHE	A	194	10.529	83.110	5.137	1.00	34.02	C
ATOM	1301	CD1	PHE	A	194	11.461	83.917	5.550	1.00	33.17	C
ATOM	1302	CE1	PHE	A	194	12.349	83.551	6.301	1.00	25.92	C
ATOM	1303	CZ	PHE	A	194	12.408	82.349	6.767	1.00	30.87	C
ATOM	1304	CE2	PHE	A	194	11.517	81.415	6.504	1.00	29.57	C
ATOM	1305	CD2	PHE	A	194	10.570	81.815	5.640	1.00	35.88	C
ATOM	1306	C	PHE	A	194	8.178	84.724	6.038	1.00	40.16	C
ATOM	1307	O	PHE	A	194	8.288	84.326	7.199	1.00	43.19	O
ATOM	1308	N	LEU	A	195	8.235	86.043	5.755	1.00	38.67	N
ATOM	1309	CA	LEU	A	195	8.478	86.913	6.921	1.00	36.08	C
ATOM	1310	CB	LEU	A	195	8.787	88.270	6.627	1.00	37.44	C
ATOM	1311	CG	LEU	A	195	9.967	88.344	5.828	1.00	43.71	C
ATOM	1312	CD1	LEU	A	195	9.561	89.135	4.473	1.00	40.56	C
ATOM	1313	CD2	LEU	A	195	10.980	89.052	6.588	1.00	48.61	C
ATOM	1314	C	LEU	A	195	7.339	86.918	7.907	1.00	35.71	C
ATOM	1315	O	LEU	A	195	7.492	87.249	9.031	1.00	33.44	O
ATOM	1316	N	ASN	A	196	6.148	86.510	7.503	1.00	37.85	N
ATOM	1317	CA	ASN	A	196	4.956	86.500	8.406	1.00	35.64	C
ATOM	1318	CB	ASN	A	196	3.707	86.278	7.665	1.00	34.38	C
ATOM	1319	CG	ASN	A	196	3.274	87.472	6.732	1.00	41.45	C
ATOM	1320	OD1	ASN	A	196	2.667	87.138	5.690	1.00	38.80	O
ATOM	1321	ND2	ASN	A	196	3.518	88.817	7.081	1.00	36.94	N
ATOM	1322	C	ASN	A	196	4.986	85.400	9.337	1.00	37.65	C
ATOM	1323	O	ASN	A	196	4.620	85.449	10.520	1.00	42.82	O
ATOM	1324	N	LEU	A	197	5.440	84.302	8.878	1.00	38.98	N
ATOM	1325	CA	LEU	A	197	5.460	83.208	9.677	1.00	38.93	C
ATOM	1326	CB	LEU	A	197	5.792	82.127	8.791	1.00	40.07	C
ATOM	1327	CG	LEU	A	197	6.086	80.864	9.514	1.00	43.57	C
ATOM	1328	CD1	LEU	A	197	4.941	80.701	10.376	1.00	48.79	C
ATOM	1329	CD2	LEU	A	197	6.251	79.757	8.483	1.00	45.32	C
ATOM	1330	C	LEU	A	197	6.574	83.527	10.623	1.00	40.32	C
ATOM	1331	O	LEU	A	197	6.499	83.272	11.835	1.00	41.14	O
ATOM	1332	N	MET	A	198	7.637	84.114	10.118	1.00	39.97	N
ATOM	1333	CA	MET	A	198	8.814	84.325	11.020	1.00	41.22	C
ATOM	1334	CB	MET	A	198	9.894	84.877	10.209	1.00	41.95	C
ATOM	1335	CG	MET	A	198	11.224	84.562	10.505	1.00	50.96	C
ATOM	1336	SD	MET	A	198	11.812	82.798	10.577	1.00	56.36	S
ATOM	1337	CE	MET	A	198	12.109	82.595	12.549	1.00	51.90	C
ATOM	1338	C	MET	A	198	8.384	85.209	12.011	1.00	44.34	C
ATOM	1339	O	MET	A	198	8.608	85.068	13.125	1.00	53.70	O
ATOM	1340	N	GLU	A	199	7.612	86.127	11.694	1.00	45.88	N
ATOM	1341	CA	GLU	A	199	7.188	87.086	12.664	1.00	47.90	C
ATOM	1342	CB	GLU	A	199	6.529	88.193	11.781	1.00	50.50	C
ATOM	1343	CG	GLU	A	199	6.121	89.474	12.598	1.00	53.80	C
ATOM	1344	CD	GLU	A	199	4.972	90.251	11.795	1.00	68.21	C
ATOM	1345	OE1	GLU	A	199	5.171	91.295	10.873	1.00	61.60	O
ATOM	1346	OE2	GLU	A	199	3.796	89.636	12.000	1.00	68.62	O
ATOM	1347	C	GLU	A	199	6.265	86.538	13.696	1.00	46.35	C
ATOM	1348	O	GLU	A	199	6.187	86.815	14.920	1.00	49.89	O
ATOM	1349	N	LYS	A	200	5.419	85.729	13.256	1.00	46.66	N
ATOM	1350	CA	LYS	A	200	4.446	85.201	14.241	1.00	43.67	C
ATOM	1351	CB	LYS	A	200	3.402	84.548	13.302	1.00	44.49	C
ATOM	1352	CG	LYS	A	200	1.949	84.718	13.689	1.00	54.43	C
ATOM	1353	CD	LYS	A	200	1.162	86.189	13.591	1.00	50.54	C
ATOM	1354	CE	LYS	A	200	1.432	86.703	12.351	1.00	53.63	C
ATOM	1355	NZ	LYS	A	200	1.403	88.137	12.530	1.00	50.36	N
ATOM	1356	C	LYS	A	200	5.198	84.281	15.118	1.00	41.56	C
ATOM	1357	O	LYS	A	200	4.891	84.262	16.182	1.00	45.27	O
ATOM	1358	N	LEU	A	201	6.281	83.525	14.708	1.00	38.68	N
ATOM	1359	CA	LEU	A	201	6.938	82.580	15.579	1.00	33.34	C
ATOM	1360	CB	LEU	A	201	7.918	81.815	14.827	1.00	31.13	C
ATOM	1361	CG	LEU	A	201	7.329	80.753	14.064	1.00	29.70	C
ATOM	1362	CD1	LEU	A	201	8.293	80.040	13.257	1.00	31.98	C
ATOM	1363	CD2	LEU	A	201	6.747	79.750	14.913	1.00	32.61	C
ATOM	1364	C	LEU	A	201	7.775	83.359	16.632	1.00	34.82	C
ATOM	1365	O	LEU	A	201	7.834	82.964	17.805	1.00	31.61	O
ATOM	1366	N	ASN	A	202	8.354	84.511	16.239	1.00	36.21	N

116/514

Figure 2

ATOM	1367	CA	ASN A 202	9.152	85.277	17.172	1.00	38.82	C
ATOM	1368	CB	ASN A 202	10.078	86.290	16.555	1.00	37.94	C
ATOM	1369	CG	ASN A 202	11.055	85.681	15.468	1.00	45.27	C
ATOM	1370	OD1	ASN A 202	11.374	86.275	14.487	1.00	46.46	O
ATOM	1371	ND2	ASN A 202	11.594	84.484	15.730	1.00	50.71	N
ATOM	1372	C	ASN A 202	8.293	85.903	18.187	1.00	42.29	C
ATOM	1373	O	ASN A 202	8.655	85.896	19.487	1.00	42.72	O
ATOM	1374	N	GLU A 203	7.069	86.332	17.783	1.00	42.63	N
ATOM	1375	CA	GLU A 203	6.248	86.939	18.888	1.00	42.60	C
ATOM	1376	CB	GLU A 203	5.020	87.378	18.286	1.00	46.93	C
ATOM	1377	CG	GLU A 203	4.605	88.845	18.495	1.00	52.55	C
ATOM	1378	CD	GLU A 203	3.115	88.982	18.492	1.00	58.26	C
ATOM	1379	OE1	GLU A 203	2.515	88.507	17.490	1.00	68.49	O
ATOM	1380	OE2	GLU A 203	2.532	89.469	19.506	1.00	65.16	O
ATOM	1381	C	GLU A 203	5.925	86.010	19.929	1.00	39.07	C
ATOM	1382	O	GLU A 203	5.870	86.232	21.166	1.00	39.68	O
ATOM	1383	N	ASN A 204	5.695	84.817	19.515	1.00	40.16	N
ATOM	1384	CA	ASN A 204	5.403	83.801	20.595	1.00	39.42	C
ATOM	1385	CB	ASN A 204	4.932	82.625	19.927	1.00	40.10	C
ATOM	1386	CG	ASN A 204	3.415	82.646	19.572	1.00	42.14	C
ATOM	1387	OD1	ASN A 204	2.920	81.734	18.903	1.00	43.48	O
ATOM	1388	ND2	ASN A 204	2.725	83.587	20.007	1.00	42.56	N
ATOM	1389	C	ASN A 204	6.637	83.554	21.509	1.00	41.05	C
ATOM	1390	O	ASN A 204	6.490	83.278	22.709	1.00	41.93	O
ATOM	1391	N	ILE A 205	7.863	83.762	20.965	1.00	37.68	N
ATOM	1392	CA	ILE A 205	8.979	83.580	21.763	1.00	35.61	C
ATOM	1393	CB	ILE A 205	10.224	83.500	20.865	1.00	36.61	C
ATOM	1394	CG1	ILE A 205	10.307	82.146	20.171	1.00	31.07	C
ATOM	1395	CD1	ILE A 205	11.093	82.327	18.869	1.00	46.46	C
ATOM	1396	CG2	ILE A 205	11.413	83.462	21.643	1.00	31.70	C
ATOM	1397	C	ILE A 205	9.199	84.661	22.758	1.00	39.14	C
ATOM	1398	O	ILE A 205	9.710	84.381	23.870	1.00	43.79	O
ATOM	1399	N	GLU A 206	8.856	85.894	22.422	1.00	40.14	N
ATOM	1400	CA	GLU A 206	8.905	87.006	23.298	1.00	41.80	C
ATOM	1401	CB	GLU A 206	8.619	88.170	22.497	1.00	44.47	C
ATOM	1402	CG	GLU A 206	8.732	89.447	23.217	1.00	57.06	C
ATOM	1403	CD	GLU A 206	9.267	90.428	22.125	1.00	63.46	C
ATOM	1404	OE1	GLU A 206	9.769	91.533	22.531	1.00	74.04	O
ATOM	1405	OE2	GLU A 206	9.318	90.035	20.925	1.00	63.39	O
ATOM	1406	C	GLU A 206	7.740	86.869	24.362	1.00	41.54	C
ATOM	1407	O	GLU A 206	7.916	86.901	25.484	1.00	36.58	O
ATOM	1408	N	ILE A 207	6.497	86.610	23.931	1.00	43.02	N
ATOM	1409	CA	ILE A 207	5.473	86.494	24.947	1.00	40.42	C
ATOM	1410	CB	ILE A 207	4.228	85.998	24.357	1.00	39.82	C
ATOM	1411	CG1	ILE A 207	3.604	86.978	23.436	1.00	47.19	C
ATOM	1412	CD1	ILE A 207	2.444	86.197	22.415	1.00	51.04	C
ATOM	1413	CG2	ILE A 207	3.320	85.757	25.249	1.00	43.22	C
ATOM	1414	C	ILE A 207	6.031	85.490	25.944	1.00	41.08	C
ATOM	1415	O	ILE A 207	6.090	85.777	27.081	1.00	40.73	O
ATOM	1416	N	LEU A 208	6.401	84.279	25.513	1.00	42.13	N
ATOM	1417	CA	LEU A 208	6.797	83.214	26.387	1.00	42.21	C
ATOM	1418	CB	LEU A 208	7.067	82.003	25.614	1.00	38.48	C
ATOM	1419	CG	LEU A 208	5.847	81.561	25.006	1.00	40.73	C
ATOM	1420	CD1	LEU A 208	5.978	80.263	24.075	1.00	41.66	C
ATOM	1421	CD2	LEU A 208	4.890	81.162	26.172	1.00	48.62	C
ATOM	1422	C	LEU A 208	8.051	83.470	27.245	1.00	45.87	C
ATOM	1423	O	LEU A 208	8.357	82.751	28.224	1.00	45.68	O
ATOM	1424	N	SER A 209	8.765	84.503	26.912	1.00	49.39	N
ATOM	1425	CA	SER A 209	9.935	84.770	27.664	1.00	51.90	C
ATOM	1426	CB	SER A 209	10.912	85.389	26.695	1.00	52.34	C
ATOM	1427	OG	SER A 209	10.410	86.691	26.542	1.00	56.90	O
ATOM	1428	C	SER A 209	9.740	85.761	28.827	1.00	53.48	C
ATOM	1429	O	SER A 209	10.575	85.860	29.761	1.00	56.40	O
ATOM	1430	N	SER A 210	8.680	86.485	28.876	1.00	53.03	N
ATOM	1431	CA	SER A 210	8.558	87.354	30.083	1.00	54.34	C
ATOM	1432	CB	SER A 210	7.252	88.051	29.973	1.00	56.76	C
ATOM	1433	OG	SER A 210	6.547	87.742	31.061	1.00	59.56	O
ATOM	1434	C	SER A 210	8.430	86.614	31.287	1.00	52.14	C
ATOM	1435	O	SER A 210	7.711	85.740	31.326	1.00	52.09	O
ATOM	1436	N	PRO A 211	9.143	87.004	32.297	1.00	52.23	N
ATOM	1437	CA	PRO A 211	9.253	86.410	33.612	1.00	52.16	C
ATOM	1438	CB	PRO A 211	10.016	87.457	34.397	1.00	53.41	C
ATOM	1439	CG	PRO A 211	10.962	88.249	33.171	1.00	56.24	C
ATOM	1440	CD	PRO A 211	10.039	88.146	32.024	1.00	54.20	C
ATOM	1441	C	PRO A 211	7.989	86.278	34.252	1.00	52.90	C
ATOM	1442	O	PRO A 211	7.715	85.475	35.175	1.00	49.17	O

117/514

Figure 2

ATOM	1443	N	TRP	A	212	7.112	87.093	33.834	1.00	56.27	N
ATOM	1444	CA	TRP	A	212	5.849	86.997	34.486	1.00	60.67	C
ATOM	1445	CB	TRP	A	212	5.230	88.456	34.819	1.00	62.42	C
ATOM	1446	CG	TRP	A	212	4.093	88.937	34.159	1.00	75.44	C
ATOM	1447	CD1	TRP	A	212	3.801	88.704	32.818	1.00	89.76	C
ATOM	1448	NE1	TRP	A	212	2.571	89.228	32.414	1.00	90.98	N
ATOM	1449	CE2	TRP	A	212	2.033	89.808	33.533	1.00	90.86	C
ATOM	1450	CD2	TRP	A	212	2.973	89.657	34.674	1.00	89.51	C
ATOM	1451	CE3	TRP	A	212	2.630	90.197	35.967	1.00	93.88	C
ATOM	1452	CZ3	TRP	A	212	1.409	90.859	36.112	1.00	93.68	C
ATOM	1453	CH2	TRP	A	212	0.525	91.010	34.963	1.00	91.84	C
ATOM	1454	CZ2	TRP	A	212	0.845	90.492	33.655	1.00	91.39	C
ATOM	1455	C	TRP	A	212	5.150	85.768	33.984	1.00	60.41	C
ATOM	1456	O	TRP	A	212	4.161	85.327	34.468	1.00	65.51	O
ATOM	1457	N	ILE	A	213	5.691	84.983	33.112	1.00	60.84	N
ATOM	1458	CA	ILE	A	213	4.924	83.703	32.768	1.00	60.07	C
ATOM	1459	CB	ILE	A	213	5.528	83.018	31.472	1.00	58.53	C
ATOM	1460	CG1	ILE	A	213	5.161	83.849	30.310	1.00	61.60	C
ATOM	1461	CD1	ILE	A	213	4.109	83.234	29.466	1.00	65.34	C
ATOM	1462	CG2	ILE	A	213	5.007	81.518	31.221	1.00	52.00	C
ATOM	1463	C	ILE	A	213	4.962	82.531	33.792	1.00	62.01	C
ATOM	1464	O	ILE	A	213	4.298	81.477	33.699	1.00	65.07	O
ATOM	1465	N	GLN	A	214	5.851	82.531	34.727	1.00	62.40	N
ATOM	1466	CA	GLN	A	214	5.740	81.412	35.673	1.00	60.67	C
ATOM	1467	CB	GLN	A	214	7.046	81.205	36.286	1.00	62.52	C
ATOM	1468	CG	GLN	A	214	7.324	79.812	36.520	1.00	66.00	C
ATOM	1469	CD	GLN	A	214	7.345	79.131	35.143	1.00	71.29	C
ATOM	1470	OE1	GLN	A	214	7.800	79.769	34.111	1.00	71.55	O
ATOM	1471	NE2	GLN	A	214	6.814	77.878	35.087	1.00	64.33	N
ATOM	1472	C	GLN	A	214	4.765	81.872	36.767	1.00	58.55	C
ATOM	1473	O	GLN	A	214	4.252	81.137	37.566	1.00	57.23	O
ATOM	1474	N	VAL	A	215	4.434	83.160	36.777	1.00	55.66	N
ATOM	1475	CA	VAL	A	215	3.478	83.539	37.729	1.00	54.06	C
ATOM	1476	CB	VAL	A	215	3.369	84.972	37.809	1.00	54.15	C
ATOM	1477	CG1	VAL	A	215	2.422	85.417	38.861	1.00	56.51	C
ATOM	1478	CG2	VAL	A	215	4.646	85.483	38.183	1.00	56.89	C
ATOM	1479	C	VAL	A	215	2.122	82.981	37.268	1.00	52.21	C
ATOM	1480	O	VAL	A	215	1.336	82.668	37.991	1.00	55.09	O
ATOM	1481	N	TYR	A	216	1.849	82.807	36.036	1.00	50.43	N
ATOM	1482	CA	TYR	A	216	0.633	82.177	35.767	1.00	47.72	C
ATOM	1483	CB	TYR	A	216	0.355	82.194	34.404	1.00	47.26	C
ATOM	1484	CG	TYR	A	216	0.098	83.529	33.752	1.00	50.88	C
ATOM	1485	CD1	TYR	A	216	-0.968	84.139	33.966	1.00	49.80	C
ATOM	1486	CE1	TYR	A	216	-1.248	85.369	33.367	1.00	49.93	C
ATOM	1487	CZ	TYR	A	216	-0.401	85.906	32.498	1.00	53.16	C
ATOM	1488	OH	TYR	A	216	-0.847	87.085	31.917	1.00	59.86	O
ATOM	1489	CE2	TYR	A	216	0.774	85.291	32.182	1.00	47.47	C
ATOM	1490	CD2	TYR	A	216	1.022	84.121	32.797	1.00	53.78	C
ATOM	1491	C	TYR	A	216	0.565	80.756	36.249	1.00	45.73	C
ATOM	1492	O	TYR	A	216	-0.455	80.365	36.689	1.00	44.98	O
ATOM	1493	N	ASN	A	217	1.643	80.021	36.246	1.00	46.24	N
ATOM	1494	CA	ASN	A	217	1.680	78.657	36.618	1.00	44.87	C
ATOM	1495	CB	ASN	A	217	2.904	78.011	36.139	1.00	44.03	C
ATOM	1496	CG	ASN	A	217	2.930	77.893	34.607	1.00	48.66	C
ATOM	1497	OD1	ASN	A	217	1.875	77.623	33.956	1.00	50.73	O
ATOM	1498	ND2	ASN	A	217	4.089	78.147	34.028	1.00	48.68	N
ATOM	1499	C	ASN	A	217	1.603	78.565	37.996	1.00	46.13	C
ATOM	1500	O	ASN	A	217	1.198	77.621	38.531	1.00	49.16	O
ATOM	1501	N	ASN	A	218	1.892	79.574	38.660	1.00	47.73	N
ATOM	1502	CA	ASN	A	218	1.773	79.378	40.057	1.00	50.23	C
ATOM	1503	CB	ASN	A	218	2.907	80.200	40.669	1.00	54.76	C
ATOM	1504	CG	ASN	A	218	3.890	79.350	41.379	1.00	60.20	C
ATOM	1505	OD1	ASN	A	218	3.720	78.048	41.465	1.00	69.56	O
ATOM	1506	ND2	ASN	A	218	4.899	79.990	41.973	1.00	67.99	N
ATOM	1507	C	ASN	A	218	0.428	79.834	40.577	1.00	50.18	C
ATOM	1508	O	ASN	A	218	-0.044	79.344	41.614	1.00	50.24	O
ATOM	1509	N	PHE	A	219	-0.237	80.752	39.834	1.00	48.26	N
ATOM	1510	CA	PHE	A	219	-1.519	81.227	40.178	1.00	46.01	C
ATOM	1511	CB	PHE	A	219	-1.251	82.584	40.640	1.00	47.67	C
ATOM	1512	CG	PHE	A	219	-0.470	82.674	41.788	1.00	47.42	C
ATOM	1513	CD1	PHE	A	219	0.315	83.726	41.967	1.00	52.39	C
ATOM	1514	CE1	PHE	A	219	1.061	83.910	43.096	1.00	59.52	C
ATOM	1515	CZ	PHE	A	219	0.991	82.990	44.096	1.00	63.37	C
ATOM	1516	CE2	PHE	A	219	0.185	81.869	43.950	1.00	60.97	C
ATOM	1517	CD2	PHE	A	219	-0.574	81.746	42.745	1.00	57.27	C
ATOM	1518	C	PHE	A	219	-2.486	81.289	38.993	1.00	45.88	C

Figure 2

ATOM	1519	O	PHE A 219	-2.888	82.428	38.564	1.00	47.78	O
ATOM	1520	N	PRO A 220	-2.891	80.129	38.470	1.00	43.31	N
ATOM	1521	CA	PRO A 220	-3.605	79.985	37.277	1.00	42.99	C
ATOM	1522	CB	PRO A 220	-3.927	78.520	37.247	1.00	41.66	C
ATOM	1523	CG	PRO A 220	-3.837	78.116	38.421	1.00	37.76	C
ATOM	1524	CD	PRO A 220	-2.767	78.831	39.073	1.00	43.84	C
ATOM	1525	C	PRO A 220	-4.747	80.917	37.209	1.00	44.77	C
ATOM	1526	O	PRO A 220	-4.956	81.672	36.257	1.00	50.32	O
ATOM	1527	N	ALA A 221	-5.402	80.992	38.267	1.00	45.06	N
ATOM	1528	CA	ALA A 221	-6.425	81.913	38.517	1.00	45.99	C
ATOM	1529	CB	ALA A 221	-6.547	81.974	39.994	1.00	50.85	C
ATOM	1530	C	ALA A 221	-6.146	83.288	37.984	1.00	47.42	C
ATOM	1531	O	ALA A 221	-6.923	83.905	37.475	1.00	51.31	O
ATOM	1532	N	LEU A 222	-5.002	83.789	37.956	1.00	50.94	N
ATOM	1533	CA	LEU A 222	-4.674	85.109	37.380	1.00	51.79	C
ATOM	1534	CB	LEU A 222	-3.210	85.420	37.634	1.00	49.88	C
ATOM	1535	CG	LEU A 222	-2.771	86.241	38.816	1.00	58.18	C
ATOM	1536	CD1	LEU A 222	-1.409	86.880	38.496	1.00	57.51	C
ATOM	1537	CD2	LEU A 222	-3.739	87.316	39.226	1.00	58.84	C
ATOM	1538	C	LEU A 222	-4.933	85.202	35.885	1.00	55.76	C
ATOM	1539	O	LEU A 222	-5.554	86.134	35.377	1.00	58.80	O
ATOM	1540	N	LEU A 223	-4.567	84.116	35.214	1.00	55.87	N
ATOM	1541	CA	LEU A 223	-4.891	83.927	33.825	1.00	54.52	C
ATOM	1542	CB	LEU A 223	-4.927	82.452	33.412	1.00	52.40	C
ATOM	1543	CG	LEU A 223	-3.638	81.735	33.122	1.00	47.89	C
ATOM	1544	CD1	LEU A 223	-3.901	80.240	32.930	1.00	45.92	C
ATOM	1545	CD2	LEU A 223	-2.997	82.306	31.861	1.00	52.18	C
ATOM	1546	C	LEU A 223	-6.260	84.615	33.489	1.00	59.11	C
ATOM	1547	O	LEU A 223	-6.174	85.721	32.861	1.00	67.97	O
ATOM	1548	N	ASP A 224	-7.379	84.084	34.028	1.00	48.66	N
ATOM	1549	CA	ASP A 224	-8.742	84.466	33.770	1.00	49.55	C
ATOM	1550	CB	ASP A 224	-9.908	83.742	34.234	1.00	47.28	C
ATOM	1551	CG	ASP A 224	-10.031	82.312	34.519	1.00	57.60	C
ATOM	1552	OD1	ASP A 224	-10.555	81.529	33.687	1.00	54.52	O
ATOM	1553	OD2	ASP A 224	-9.741	81.907	35.684	1.00	56.14	O
ATOM	1554	C	ASP A 224	-8.869	85.940	34.039	1.00	50.79	C
ATOM	1555	O	ASP A 224	-9.200	86.730	33.139	1.00	54.74	O
ATOM	1556	N	TYR A 225	-8.381	87.915	34.404	1.00	56.82	N
ATOM	1557	CA	TYR A 225	-7.707	89.121	34.994	1.00	59.56	C
ATOM	1558	CB	TYR A 225	-7.127	88.855	36.414	1.00	58.94	C
ATOM	1559	CG	TYR A 225	-8.229	88.432	37.353	1.00	58.51	C
ATOM	1560	CD1	TYR A 225	-7.988	87.410	38.083	1.00	66.89	C
ATOM	1561	CE1	TYR A 225	-8.958	86.923	39.035	1.00	70.13	C
ATOM	1562	CZ	TYR A 225	-10.192	87.523	39.143	1.00	74.35	C
ATOM	1563	OH	TYR A 225	-11.069	86.968	40.112	1.00	76.12	O
ATOM	1564	CE2	TYR A 225	-10.465	88.640	38.366	1.00	69.33	C
ATOM	1565	CD2	TYR A 225	-9.484	89.053	37.499	1.00	69.99	C
ATOM	1566	C	TYR A 225	-6.615	89.621	34.224	1.00	59.87	C
ATOM	1567	O	TYR A 225	-6.165	90.764	34.369	1.00	65.30	O
ATOM	1568	N	PHE A 226	-6.019	88.667	33.542	1.00	59.90	N
ATOM	1569	CA	PHE A 226	-5.012	88.961	32.402	1.00	58.46	C
ATOM	1570	CB	PHE A 226	-3.609	89.142	32.964	1.00	57.41	C
ATOM	1571	CG	PHE A 226	-3.543	90.059	34.106	1.00	59.21	C
ATOM	1572	CD1	PHE A 226	-3.782	89.564	35.344	1.00	63.07	C
ATOM	1573	CE1	PHE A 226	-3.735	90.370	36.487	1.00	66.39	C
ATOM	1574	CZ	PHE A 226	-3.442	91.663	36.352	1.00	68.76	C
ATOM	1575	CE2	PHE A 226	-3.152	92.178	35.120	1.00	64.02	C
ATOM	1576	CD2	PHE A 226	-3.226	91.398	34.012	1.00	66.80	C
ATOM	1577	C	PHE A 226	-4.920	88.133	31.165	1.00	56.79	C
ATOM	1578	O	PHE A 226	-3.868	87.766	30.755	1.00	61.20	O
ATOM	1579	N	PRO A 227	-5.995	87.949	30.489	1.00	57.22	N
ATOM	1580	CA	PRO A 227	-6.090	87.080	29.318	1.00	55.27	C
ATOM	1581	CB	PRO A 227	-7.539	87.221	28.860	1.00	55.17	C
ATOM	1582	CG	PRO A 227	-8.317	87.662	30.116	1.00	60.17	C
ATOM	1583	CD	PRO A 227	-7.281	88.572	30.769	1.00	59.84	C
ATOM	1584	C	PRO A 227	-5.187	87.524	28.297	1.00	51.67	C
ATOM	1585	O	PRO A 227	-4.807	86.777	27.524	1.00	53.19	O
ATOM	1586	N	GLY A 228	-4.802	88.726	28.233	1.00	50.97	N
ATOM	1587	CA	GLY A 228	-3.874	89.036	27.106	1.00	50.50	C
ATOM	1588	C	GLY A 228	-2.809	88.012	26.681	1.00	49.43	C
ATOM	1589	O	GLY A 228	-2.570	87.711	25.516	1.00	51.18	O
ATOM	1590	N	THR A 229	-2.108	87.405	27.601	1.00	49.64	N
ATOM	1591	CA	THR A 229	-1.068	86.449	27.123	1.00	47.24	C
ATOM	1592	CB	THR A 229	-0.179	86.151	28.236	1.00	45.77	C
ATOM	1593	OG1	THR A 229	0.437	87.347	28.814	1.00	44.45	O
ATOM	1594	CG2	THR A 229	0.800	85.172	27.836	1.00	46.94	C

Figure 2

ATOM	1595	C	THR	A	229	-1.886	85.306	26.809	1.00	45.90	C
ATOM	1596	O	THR	A	229	-2.756	84.974	27.499	1.00	48.27	O
ATOM	1597	N	HIS	A	230	-1.681	84.613	25.830	1.00	45.13	N
ATOM	1598	CA	HIS	A	230	-2.698	83.470	25.728	1.00	47.17	C
ATOM	1599	CB	HIS	A	230	-3.177	82.718	26.918	1.00	41.72	C
ATOM	1600	CG	HIS	A	230	-4.536	83.024	27.452	1.00	48.23	C
ATOM	1601	ND1	HIS	A	230	-4.976	82.576	28.709	1.00	49.66	N
ATOM	1602	CE1	HIS	A	230	-6.192	82.991	28.914	1.00	48.56	C
ATOM	1603	NE2	HIS	A	230	-6.585	83.667	27.851	1.00	49.12	N
ATOM	1604	CD2	HIS	A	230	-5.570	83.699	26.932	1.00	54.25	C
ATOM	1605	C	HIS	A	230	-3.698	83.750	24.687	1.00	49.39	C
ATOM	1606	O	HIS	A	230	-4.103	82.840	24.010	1.00	52.51	O
ATOM	1607	N	ASN	A	231	-4.010	85.007	24.536	1.00	48.87	N
ATOM	1608	CA	ASN	A	231	-4.880	85.400	23.520	1.00	48.67	C
ATOM	1609	CB	ASN	A	231	-5.692	86.639	23.935	1.00	49.28	C
ATOM	1610	CG	ASN	A	231	-6.960	86.308	24.803	1.00	53.14	C
ATOM	1611	OD1	ASN	A	231	-7.433	85.079	24.993	1.00	48.05	O
ATOM	1612	ND2	ASN	A	231	-7.582	87.455	25.324	1.00	50.87	N
ATOM	1613	C	ASN	A	231	-3.980	85.708	22.368	1.00	46.50	C
ATOM	1614	O	ASN	A	231	-4.278	85.516	21.228	1.00	48.81	O
ATOM	1615	N	LYS	A	232	-2.830	86.227	22.646	1.00	45.43	N
ATOM	1616	CA	LYS	A	232	-1.894	86.460	21.553	1.00	45.64	C
ATOM	1617	CB	LYS	A	232	-0.857	87.445	22.004	1.00	47.70	C
ATOM	1618	CG	LYS	A	232	-0.766	88.836	21.221	1.00	53.98	C
ATOM	1619	CD	LYS	A	232	-1.264	89.910	22.216	1.00	64.66	C
ATOM	1620	CE	LYS	A	232	-0.646	89.836	23.737	1.00	66.02	C
ATOM	1621	NZ	LYS	A	232	0.702	90.701	23.913	1.00	69.73	N
ATOM	1622	C	LYS	A	232	-1.302	85.100	21.072	1.00	41.47	C
ATOM	1623	O	LYS	A	232	-1.141	84.816	19.887	1.00	44.35	O
ATOM	1624	N	LEU	A	233	-1.125	84.219	21.978	1.00	34.85	N
ATOM	1625	CA	LEU	A	233	-0.592	82.967	21.629	1.00	34.48	C
ATOM	1626	CB	LEU	A	233	-0.130	82.143	22.977	1.00	31.50	C
ATOM	1627	CG	LEU	A	233	1.043	82.732	23.718	1.00	37.06	C
ATOM	1628	CD1	LEU	A	233	1.451	82.025	24.905	1.00	39.64	C
ATOM	1629	CD2	LEU	A	233	2.173	82.988	22.791	1.00	41.47	C
ATOM	1630	C	LEU	A	233	-1.612	82.351	20.808	1.00	35.00	C
ATOM	1631	O	LEU	A	233	-1.386	81.953	19.761	1.00	35.44	O
ATOM	1632	N	LEU	A	234	-2.865	82.341	21.327	1.00	38.81	N
ATOM	1633	CA	LEU	A	234	-4.027	81.739	20.580	1.00	37.07	C
ATOM	1634	CB	LEU	A	234	-5.333	81.798	21.398	1.00	34.97	C
ATOM	1635	CG	LEU	A	234	-5.337	80.618	22.398	1.00	37.00	C
ATOM	1636	CD1	LEU	A	234	-6.600	80.657	23.123	1.00	36.25	C
ATOM	1637	CD2	LEU	A	234	-5.132	79.363	22.016	1.00	35.64	C
ATOM	1638	C	LEU	A	234	-4.202	82.367	19.204	1.00	36.64	C
ATOM	1639	O	LEU	A	234	-4.486	81.756	18.258	1.00	35.79	O
ATOM	1640	N	LYS	A	235	-4.067	83.641	19.136	1.00	37.48	N
ATOM	1641	CA	LYS	A	235	-4.366	84.213	17.900	1.00	39.58	C
ATOM	1642	CB	LYS	A	235	-4.496	85.611	18.088	1.00	39.74	C
ATOM	1643	CG	LYS	A	235	-4.654	86.348	16.944	1.00	52.54	C
ATOM	1644	CD	LYS	A	235	-5.195	87.926	17.167	1.00	62.82	C
ATOM	1645	CE	LYS	A	235	-6.717	87.934	17.791	1.00	69.67	C
ATOM	1646	NZ	LYS	A	235	-6.827	88.260	19.482	1.00	68.35	N
ATOM	1647	C	LYS	A	235	-3.276	83.799	16.971	1.00	40.86	C
ATOM	1648	O	LYS	A	235	-3.483	83.333	15.904	1.00	42.13	O
ATOM	1649	N	ASN	A	236	-2.031	83.853	17.396	1.00	43.68	N
ATOM	1650	CA	ASN	A	236	-0.845	83.459	16.493	1.00	38.89	C
ATOM	1651	CB	ASN	A	236	0.332	83.741	17.263	1.00	41.95	C
ATOM	1652	CG	ASN	A	236	0.694	85.242	17.335	1.00	43.03	C
ATOM	1653	OD1	ASN	A	236	1.583	85.667	18.166	1.00	44.01	O
ATOM	1654	ND2	ASN	A	236	0.089	85.986	16.548	1.00	41.76	N
ATOM	1655	C	ASN	A	236	-0.831	82.078	16.033	1.00	34.42	C
ATOM	1656	O	ASN	A	236	-0.594	81.737	14.828	1.00	34.81	O
ATOM	1657	N	VAL	A	237	-1.143	81.206	16.893	1.00	31.63	N
ATOM	1658	CA	VAL	A	237	-1.076	79.852	16.470	1.00	32.14	C
ATOM	1659	CB	VAL	A	237	-1.430	79.093	17.524	1.00	32.23	C
ATOM	1660	CG1	VAL	A	237	-1.767	77.658	17.208	1.00	35.60	C
ATOM	1661	CG2	VAL	A	237	-0.291	79.140	18.490	1.00	36.37	C
ATOM	1662	C	VAL	A	237	-2.107	79.755	15.428	1.00	37.98	C
ATOM	1663	O	VAL	A	237	-2.062	78.983	14.314	1.00	42.65	O
ATOM	1664	N	ALA	A	238	-3.124	80.543	15.651	1.00	39.20	N
ATOM	1665	CA	ALA	A	238	-4.303	80.424	14.654	1.00	39.22	C
ATOM	1666	CB	ALA	A	238	-5.290	81.224	15.084	1.00	41.36	C
ATOM	1667	C	ALA	A	238	-3.909	80.887	13.353	1.00	35.38	C
ATOM	1668	O	ALA	A	238	-4.178	80.286	12.346	1.00	38.73	O
ATOM	1669	N	PHE	A	239	-3.268	81.981	13.340	1.00	34.04	N
ATOM	1670	CA	PHE	A	239	-2.780	82.527	12.033	1.00	35.60	C

120/514

Figure 2

ATOM	1671	CB	PHE A 239	-2.001	83.716	12.301	1.00	32.91	C
ATOM	1672	CG	PHE A 239	-1.409	84.331	11.179	1.00	37.44	C
ATOM	1673	CD1	PHE A 239	-0.365	83.776	10.537	1.00	40.72	C
ATOM	1674	CE1	PHE A 239	0.308	84.513	9.387	1.00	39.72	C
ATOM	1675	CZ	PHE A 239	-0.176	85.667	8.938	1.00	37.66	C
ATOM	1676	CE2	PHE A 239	-1.282	86.158	9.573	1.00	38.85	C
ATOM	1677	CD2	PHE A 239	-1.878	85.577	10.704	1.00	34.48	C
ATOM	1678	C	PHE A 239	-1.922	81.505	11.339	1.00	39.78	C
ATOM	1679	O	PHE A 239	-2.171	81.124	10.260	1.00	43.56	O
ATOM	1680	N	MET A 240	-0.968	80.931	12.069	1.00	44.03	N
ATOM	1681	CA	MET A 240	-0.129	79.909	11.507	1.00	41.58	C
ATOM	1682	CB	MET A 240	0.952	79.464	12.577	1.00	40.36	C
ATOM	1683	CG	MET A 240	2.292	80.181	12.478	1.00	39.00	C
ATOM	1684	SD	MET A 240	3.058	80.360	14.088	1.00	50.64	S
ATOM	1685	CE	MET A 240	2.541	78.899	14.899	1.00	49.00	C
ATOM	1686	C	MET A 240	-1.004	78.755	11.133	1.00	40.12	C
ATOM	1687	O	MET A 240	-0.802	78.237	10.085	1.00	38.71	O
ATOM	1688	N	LYS A 241	-1.891	78.241	11.961	1.00	40.56	N
ATOM	1689	CA	LYS A 241	-2.608	76.991	11.430	1.00	42.09	C
ATOM	1690	CB	LYS A 241	-3.621	76.495	12.388	1.00	42.82	C
ATOM	1691	CG	LYS A 241	-3.160	75.646	13.513	1.00	46.02	C
ATOM	1692	CD	LYS A 241	-3.623	75.881	14.836	1.00	48.60	C
ATOM	1693	CE	LYS A 241	-4.216	74.586	15.489	1.00	52.19	C
ATOM	1694	NZ	LYS A 241	-5.011	73.757	14.324	1.00	53.79	N
ATOM	1695	C	LYS A 241	-3.255	77.312	10.092	1.00	46.41	C
ATOM	1696	O	LYS A 241	-3.366	76.501	9.203	1.00	47.46	O
ATOM	1697	N	SER A 242	-3.624	78.554	9.836	1.00	46.70	N
ATOM	1698	CA	SER A 242	-4.316	78.765	8.609	1.00	45.60	C
ATOM	1699	CB	SER A 242	-4.954	80.172	8.595	1.00	47.64	C
ATOM	1700	OG	SER A 242	-6.174	80.040	9.156	1.00	52.43	O
ATOM	1701	C	SER A 242	-3.521	78.777	7.477	1.00	46.09	C
ATOM	1702	O	SER A 242	-4.069	78.373	6.391	1.00	49.46	O
ATOM	1703	N	TYR A 243	-2.327	79.457	7.583	1.00	44.40	N
ATOM	1704	CA	TYR A 243	-1.323	79.581	6.525	1.00	40.51	C
ATOM	1705	CB	TYR A 243	-0.075	80.212	7.125	1.00	41.88	C
ATOM	1706	CG	TYR A 243	1.012	80.141	6.115	1.00	47.46	C
ATOM	1707	CD1	TYR A 243	1.077	81.008	5.163	1.00	50.59	C
ATOM	1708	CE1	TYR A 243	1.957	80.938	4.232	1.00	51.41	C
ATOM	1709	CZ	TYR A 243	2.832	79.981	4.195	1.00	50.41	C
ATOM	1710	OH	TYR A 243	3.726	80.002	3.084	1.00	52.12	O
ATOM	1711	CE2	TYR A 243	2.812	79.059	5.143	1.00	48.94	C
ATOM	1712	CD2	TYR A 243	1.926	79.141	6.111	1.00	49.78	C
ATOM	1713	C	TYR A 243	-1.111	78.168	6.113	1.00	42.04	C
ATOM	1714	O	TYR A 243	-1.176	77.821	5.025	1.00	44.81	O
ATOM	1715	N	ILE A 244	-0.955	77.236	7.032	1.00	42.24	N
ATOM	1716	CA	ILE A 244	-0.680	75.910	6.726	1.00	40.63	C
ATOM	1717	CB	ILE A 244	-0.409	75.179	8.025	1.00	41.16	C
ATOM	1718	CG1	ILE A 244	0.787	75.805	8.720	1.00	44.67	C
ATOM	1719	CD1	ILE A 244	1.085	75.476	10.141	1.00	43.26	C
ATOM	1720	CG2	ILE A 244	-0.128	73.604	7.860	1.00	38.87	C
ATOM	1721	C	ILE A 244	-1.796	75.347	5.986	1.00	42.47	C
ATOM	1722	O	ILE A 244	-1.584	74.866	5.011	1.00	48.90	O
ATOM	1723	N	LEU A 245	-2.996	75.292	6.488	1.00	44.74	N
ATOM	1724	CA	LEU A 245	-4.187	74.808	5.796	1.00	41.58	C
ATOM	1725	CB	LEU A 245	-5.370	75.401	6.416	1.00	36.64	C
ATOM	1726	CG	LEU A 245	-6.717	74.672	6.429	1.00	45.21	C
ATOM	1727	CD1	LEU A 245	-7.569	75.291	5.593	1.00	50.65	C
ATOM	1728	CD2	LEU A 245	-6.617	73.043	6.132	1.00	43.42	C
ATOM	1729	C	LEU A 245	-4.191	75.271	4.294	1.00	43.18	C
ATOM	1730	O	LEU A 245	-4.445	74.562	3.356	1.00	44.18	O
ATOM	1731	N	GLU A 246	-3.874	76.468	4.032	1.00	43.27	N
ATOM	1732	CA	GLU A 246	-3.947	76.941	2.689	1.00	43.36	C
ATOM	1733	CB	GLU A 246	-3.726	78.398	2.740	1.00	42.57	C
ATOM	1734	CG	GLU A 246	-3.079	78.982	1.604	1.00	48.26	C
ATOM	1735	CD	GLU A 246	-2.865	80.564	1.777	1.00	63.53	C
ATOM	1736	OE1	GLU A 246	-3.429	81.216	2.750	1.00	64.48	O
ATOM	1737	OE2	GLU A 246	-2.154	81.362	0.898	1.00	79.80	O
ATOM	1738	C	GLU A 246	-2.894	76.121	1.923	1.00	47.70	C
ATOM	1739	O	GLU A 246	-3.012	75.675	0.767	1.00	53.86	O
ATOM	1740	N	LYS A 247	-1.852	75.835	2.648	1.00	50.47	N
ATOM	1741	CA	LYS A 247	-0.744	75.171	2.060	1.00	48.58	C
ATOM	1742	CB	LYS A 247	0.469	75.341	2.925	1.00	49.63	C
ATOM	1743	CG	LYS A 247	1.649	76.014	2.175	1.00	49.30	C
ATOM	1744	CD	LYS A 247	1.502	77.256	2.175	1.00	48.66	C
ATOM	1745	CE	LYS A 247	2.683	78.071	1.562	1.00	46.02	C
ATOM	1746	NZ	LYS A 247	2.793	77.908	0.079	1.00	54.19	N

121/514

Figure 2

ATOM	1747	C	LYS	A	247	-1.038	73.802	1.818	1.00	46.07	C
ATOM	1748	O	LYS	A	247	-0.534	73.268	0.898	1.00	52.18	O
ATOM	1749	N	VAL	A	248	-1.767	73.122	2.726	1.00	40.67	N
ATOM	1750	CA	VAL	A	248	-2.007	71.757	2.496	1.00	42.10	C
ATOM	1751	CB	VAL	A	248	-2.459	71.049	3.757	1.00	42.35	C
ATOM	1752	CG1	VAL	A	248	-2.432	71.901	4.877	1.00	41.80	C
ATOM	1753	CG2	VAL	A	248	-3.851	70.372	3.512	1.00	48.12	C
ATOM	1754	C	VAL	A	248	-3.112	71.543	1.429	1.00	46.47	C
ATOM	1755	O	VAL	A	248	-3.416	70.346	0.881	1.00	42.37	O
ATOM	1756	N	LYS	A	249	-3.739	72.683	1.143	1.00	50.75	N
ATOM	1757	CA	LYS	A	249	-4.758	72.602	0.158	1.00	51.28	C
ATOM	1758	CB	LYS	A	249	-5.688	73.828	0.259	1.00	51.65	C
ATOM	1759	CG	LYS	A	249	-7.032	73.434	1.175	1.00	53.66	C
ATOM	1760	CD	LYS	A	249	-7.994	74.671	1.061	1.00	57.63	C
ATOM	1761	CE	LYS	A	249	-8.900	74.755	2.231	1.00	55.47	C
ATOM	1762	NZ	LYS	A	249	-9.241	73.278	2.613	1.00	45.91	N
ATOM	1763	C	LYS	A	249	-4.024	72.411	-1.174	1.00	50.92	C
ATOM	1764	O	LYS	A	249	-4.162	71.331	-1.838	1.00	48.68	O
ATOM	1765	N	GLU	A	250	-3.250	73.438	-1.509	1.00	50.83	N
ATOM	1766	CA	GLU	A	250	-2.407	73.372	-2.661	1.00	53.39	C
ATOM	1767	CB	GLU	A	250	-1.199	74.336	-2.755	1.00	53.74	C
ATOM	1768	CG	GLU	A	250	-1.477	75.808	-2.316	1.00	59.66	C
ATOM	1769	CD	GLU	A	250	-0.234	76.808	-2.402	1.00	70.61	C
ATOM	1770	OE1	GLU	A	250	-0.298	78.007	-2.770	1.00	72.93	O
ATOM	1771	OE2	GLU	A	250	0.929	76.482	-2.006	1.00	81.66	O
ATOM	1772	C	GLU	A	250	-1.870	71.939	-2.736	1.00	54.65	C
ATOM	1773	O	GLU	A	250	-1.928	71.270	-3.722	1.00	58.66	O
ATOM	1774	N	HIS	A	251	-1.436	71.381	-1.685	1.00	53.45	N
ATOM	1775	CA	HIS	A	251	-1.011	70.033	-1.796	1.00	52.84	C
ATOM	1776	CB	HIS	A	251	-0.319	69.733	-0.354	1.00	52.61	C
ATOM	1777	CG	HIS	A	251	1.134	70.136	-0.280	1.00	52.90	C
ATOM	1778	ND1	HIS	A	251	1.578	71.448	-0.382	1.00	53.11	N
ATOM	1779	CE1	HIS	A	251	2.894	71.485	-0.292	1.00	44.68	C
ATOM	1780	NE2	HIS	A	251	3.323	70.236	-0.145	1.00	48.91	N
ATOM	1781	CD2	HIS	A	251	2.245	69.373	-0.135	1.00	51.85	C
ATOM	1782	C	HIS	A	251	-2.117	69.003	-2.104	1.00	53.37	C
ATOM	1783	O	HIS	A	251	-1.917	68.123	-2.750	1.00	53.11	O
ATOM	1784	N	GLN	A	252	-3.220	69.038	-1.435	1.00	55.94	N
ATOM	1785	CA	GLN	A	252	-4.298	68.115	-1.804	1.00	58.62	C
ATOM	1786	CB	GLN	A	252	-5.590	68.299	-0.967	1.00	56.53	C
ATOM	1787	CG	GLN	A	252	-5.449	68.604	0.478	1.00	61.83	C
ATOM	1788	CD	GLN	A	252	-6.666	68.433	1.307	1.00	55.48	C
ATOM	1789	OE1	GLN	A	252	-6.922	67.356	1.749	1.00	57.94	O
ATOM	1790	NE2	GLN	A	252	-7.365	69.550	1.610	1.00	53.90	N
ATOM	1791	C	GLN	A	252	-4.589	68.274	-3.326	1.00	60.46	C
ATOM	1792	O	GLN	A	252	-4.947	67.373	-4.012	1.00	57.73	O
ATOM	1793	N	GLU	A	253	-4.394	69.446	-3.846	1.00	64.61	N
ATOM	1794	CA	GLU	A	253	-4.497	69.585	-5.269	1.00	67.30	C
ATOM	1795	CB	GLU	A	253	-4.513	71.023	-5.658	1.00	66.82	C
ATOM	1796	CG	GLU	A	253	-5.041	71.182	-7.031	1.00	71.27	C
ATOM	1797	CD	GLU	A	253	-3.944	71.055	-7.993	1.00	79.88	C
ATOM	1798	OE1	GLU	A	253	-4.199	70.413	-9.127	1.00	88.91	O
ATOM	1799	OE2	GLU	A	253	-2.823	71.516	-7.517	1.00	80.91	O
ATOM	1800	C	GLU	A	253	-3.414	68.929	-6.014	1.00	70.94	C
ATOM	1801	O	GLU	A	253	-3.664	68.193	-6.958	1.00	77.05	O
ATOM	1802	N	SER	A	254	-2.159	69.208	-5.710	1.00	72.94	N
ATOM	1803	CA	SER	A	254	-1.079	68.799	-6.659	1.00	73.02	C
ATOM	1804	CB	SER	A	254	-0.232	69.934	-7.053	1.00	74.77	C
ATOM	1805	OG	SER	A	254	0.292	69.510	-8.357	1.00	78.60	O
ATOM	1806	C	SER	A	254	-0.313	67.617	-6.342	1.00	70.55	C
ATOM	1807	O	SER	A	254	0.653	67.185	-6.852	1.00	72.23	O
ATOM	1808	N	MET	A	255	-1.001	66.924	-5.591	1.00	68.07	N
ATOM	1809	CA	MET	A	255	-0.325	65.877	-4.816	1.00	65.74	C
ATOM	1810	CB	MET	A	255	-0.959	65.755	-3.378	1.00	65.48	C
ATOM	1811	CG	MET	A	255	-0.186	65.119	-2.353	1.00	73.23	C
ATOM	1812	SD	MET	A	255	-0.496	63.468	-1.841	1.00	85.69	S
ATOM	1813	CE	MET	A	255	-2.533	63.317	-1.230	1.00	80.36	C
ATOM	1814	C	MET	A	255	-0.512	64.575	-5.571	1.00	62.75	C
ATOM	1815	O	MET	A	255	-1.609	64.189	-5.779	1.00	64.04	O
ATOM	1816	N	ASP	A	256	0.599	63.887	-5.824	1.00	59.02	N
ATOM	1817	CA	ASP	A	256	0.727	62.596	-6.467	1.00	53.65	C
ATOM	1818	CB	ASP	A	256	1.741	62.744	-7.537	1.00	54.44	C
ATOM	1819	CG	ASP	A	256	2.275	61.487	-8.053	1.00	50.75	C
ATOM	1820	OD1	ASP	A	256	1.618	60.426	-8.051	1.00	47.11	O
ATOM	1821	OD2	ASP	A	256	3.395	61.626	-8.621	1.00	56.89	O
ATOM	1822	C	ASP	A	256	1.130	61.613	-5.560	1.00	49.20	C

Figure 2

ATOM	1823	O	ASP	A	256	2.220	61.428	-5.130	1.00	48.00	O
ATOM	1824	N	MET	A	257	0.111	60.949	-5.172	1.00	39.38	N
ATOM	1825	CA	MET	A	257	0.518	59.845	-4.247	1.00	41.43	C
ATOM	1826	CB	MET	A	257	-0.652	58.966	-3.823	1.00	41.92	C
ATOM	1827	CG	MET	A	257	-2.109	59.857	-3.413	1.00	34.70	C
ATOM	1828	SD	MET	A	257	-2.264	59.117	-1.582	1.00	39.23	S
ATOM	1829	CE	MET	A	257	-3.619	60.533	-0.988	1.00	37.51	C
ATOM	1830	C	MET	A	257	1.478	58.868	-5.011	1.00	44.80	C
ATOM	1831	O	MET	A	257	1.912	59.183	-6.168	1.00	56.01	O
ATOM	1832	N	ASN	A	258	1.959	57.846	-4.337	1.00	54.41	N
ATOM	1833	CA	ASN	A	258	3.134	57.160	-5.012	1.00	58.40	C
ATOM	1834	CB	ASN	A	258	2.886	56.734	-6.446	1.00	62.22	C
ATOM	1835	CG	ASN	A	258	1.535	56.227	-6.689	1.00	66.78	C
ATOM	1836	OD1	ASN	A	258	1.288	55.044	-6.294	1.00	72.63	O
ATOM	1837	ND2	ASN	A	258	0.653	57.074	-7.374	1.00	66.32	N
ATOM	1838	C	ASN	A	258	4.397	57.968	-5.215	1.00	56.95	C
ATOM	1839	O	ASN	A	258	5.377	57.336	-5.522	1.00	56.76	O
ATOM	1840	N	ASN	A	259	4.407	59.302	-4.995	1.00	56.21	N
ATOM	1841	CA	ASN	A	259	5.577	60.217	-5.076	1.00	52.90	C
ATOM	1842	CB	ASN	A	259	5.561	60.860	-6.442	1.00	57.88	C
ATOM	1843	CG	ASN	A	259	5.919	59.945	-7.492	1.00	58.00	C
ATOM	1844	OD1	ASN	A	259	6.666	59.055	-7.243	1.00	57.65	O
ATOM	1845	ND2	ASN	A	259	5.361	60.167	-8.690	1.00	54.07	N
ATOM	1846	C	ASN	A	259	5.573	61.415	-4.108	1.00	48.99	C
ATOM	1847	O	ASN	A	259	5.783	62.557	-4.517	1.00	46.14	O
ATOM	1848	N	PRO	A	260	5.388	61.165	-2.843	1.00	47.56	N
ATOM	1849	CA	PRO	A	260	5.420	62.233	-1.875	1.00	46.94	C
ATOM	1850	CB	PRO	A	260	4.967	61.585	-0.635	1.00	49.11	C
ATOM	1851	CG	PRO	A	260	5.391	60.152	-0.804	1.00	49.97	C
ATOM	1852	CD	PRO	A	260	5.159	59.888	-2.207	1.00	47.72	C
ATOM	1853	C	PRO	A	260	6.771	62.817	-1.803	1.00	45.67	C
ATOM	1854	O	PRO	A	260	7.659	62.102	-1.833	1.00	44.97	O
ATOM	1855	N	GLN	A	261	6.829	64.132	-1.754	1.00	45.03	N
ATOM	1856	CA	GLN	A	261	7.992	64.857	-1.674	1.00	47.38	C
ATOM	1857	CB	GLN	A	261	7.892	65.882	-2.676	1.00	47.93	C
ATOM	1858	CG	GLN	A	261	7.511	65.341	-3.981	1.00	56.58	C
ATOM	1859	CD	GLN	A	261	8.558	65.582	-5.053	1.00	62.00	C
ATOM	1860	OE1	GLN	A	261	9.584	64.853	-5.159	1.00	59.84	O
ATOM	1861	NE2	GLN	A	261	8.310	66.612	-5.849	1.00	67.68	N
ATOM	1862	C	GLN	A	261	8.143	65.672	-0.340	1.00	48.48	C
ATOM	1863	O	GLN	A	261	9.170	66.233	-0.123	1.00	50.79	O
ATOM	1864	N	ASP	A	262	7.141	65.860	0.533	1.00	46.27	N
ATOM	1865	CA	ASP	A	262	7.415	66.573	1.803	1.00	42.21	C
ATOM	1866	CB	ASP	A	262	7.386	68.041	1.681	1.00	41.36	C
ATOM	1867	CG	ASP	A	262	6.183	68.456	1.056	1.00	40.76	C
ATOM	1868	OD1	ASP	A	262	5.996	69.735	0.561	1.00	34.09	O
ATOM	1869	OD2	ASP	A	262	5.294	67.545	1.063	1.00	45.38	O
ATOM	1870	C	ASP	A	262	6.514	66.046	2.862	1.00	42.64	C
ATOM	1871	O	ASP	A	262	5.851	64.948	2.686	1.00	43.26	O
ATOM	1872	N	PHE	A	263	6.482	66.717	4.037	1.00	42.18	N
ATOM	1873	CA	PHE	A	263	5.723	66.184	5.298	1.00	37.66	C
ATOM	1874	CB	PHE	A	263	5.907	67.086	6.416	1.00	36.73	C
ATOM	1875	CG	PHE	A	263	5.546	66.590	7.599	1.00	35.73	C
ATOM	1876	CD1	PHE	A	263	6.331	65.767	8.256	1.00	42.15	C
ATOM	1877	CE1	PHE	A	263	5.936	65.225	9.495	1.00	43.88	C
ATOM	1878	CZ	PHE	A	263	4.784	65.543	10.062	1.00	40.58	C
ATOM	1879	CE2	PHE	A	263	4.006	66.434	9.474	1.00	35.40	C
ATOM	1880	CD2	PHE	A	263	4.393	66.972	8.196	1.00	38.74	C
ATOM	1881	C	PHE	A	263	4.290	66.140	4.912	1.00	40.34	C
ATOM	1882	O	PHE	A	263	3.573	65.083	5.011	1.00	41.12	O
ATOM	1883	N	ILE	A	264	3.790	67.243	4.396	1.00	39.70	N
ATOM	1884	CA	ILE	A	264	2.368	67.216	4.123	1.00	40.42	C
ATOM	1885	CB	ILE	A	264	2.065	68.537	3.451	1.00	40.99	C
ATOM	1886	CG1	ILE	A	264	2.119	69.640	4.467	1.00	35.48	C
ATOM	1887	CD1	ILE	A	264	1.928	71.032	3.840	1.00	34.85	C
ATOM	1888	CG2	ILE	A	264	0.556	68.647	2.869	1.00	43.26	C
ATOM	1889	C	ILE	A	264	1.960	65.920	3.180	1.00	43.69	C
ATOM	1890	O	ILE	A	264	1.183	65.074	3.660	1.00	46.60	O
ATOM	1891	N	ASP	A	265	2.549	65.765	1.946	1.00	39.55	N
ATOM	1892	CA	ASP	A	265	2.318	64.716	0.919	1.00	37.91	C
ATOM	1893	CB	ASP	A	265	3.467	64.525	-0.015	1.00	39.19	C
ATOM	1894	CG	ASP	A	265	3.493	65.529	-1.099	1.00	42.36	C
ATOM	1895	OD1	ASP	A	265	2.419	66.296	-1.114	1.00	47.16	O
ATOM	1896	OD2	ASP	A	265	4.515	65.636	-1.978	1.00	40.01	O
ATOM	1897	C	ASP	A	265	2.235	63.617	1.753	1.00	35.74	C
ATOM	1898	O	ASP	A	265	1.345	62.890	1.498	1.00	40.09	O

123/514

Figure 2

ATOM	1899	N	CYS	A	266	3.192	63.365	2.639	1.00	42.34	N
ATOM	1900	CA	CYS	A	266	3.199	61.999	3.387	1.00	44.33	C
ATOM	1901	CB	CYS	A	266	4.519	61.747	4.192	1.00	43.29	C
ATOM	1902	SG	CYS	A	266	5.945	61.642	3.192	1.00	46.66	S
ATOM	1903	C	CYS	A	266	2.084	61.870	4.429	1.00	42.13	C
ATOM	1904	O	CYS	A	266	1.709	60.900	4.761	1.00	41.94	O
ATOM	1905	N	PHE	A	267	1.669	62.927	4.997	1.00	44.31	N
ATOM	1906	CA	PHE	A	267	0.578	62.860	5.989	1.00	45.83	C
ATOM	1907	CB	PHE	A	267	0.646	64.106	6.909	1.00	43.79	C
ATOM	1908	CG	PHE	A	267	-0.264	64.113	8.106	1.00	46.32	C
ATOM	1909	CD1	PHE	A	267	0.217	63.940	9.355	1.00	47.95	C
ATOM	1910	CE1	PHE	A	267	-0.505	63.957	10.353	1.00	41.71	C
ATOM	1911	CZ	PHE	A	267	-1.677	64.167	10.239	1.00	48.75	C
ATOM	1912	CE2	PHE	A	267	-2.230	64.379	8.988	1.00	50.03	C
ATOM	1913	CD2	PHE	A	267	-1.549	64.369	7.998	1.00	45.57	C
ATOM	1914	C	PHE	A	267	-0.738	62.690	5.141	1.00	43.79	C
ATOM	1915	O	PHE	A	267	-1.645	61.945	5.508	1.00	41.86	O
ATOM	1916	N	LEU	A	268	-0.784	63.335	4.005	1.00	44.34	N
ATOM	1917	CA	LEU	A	268	-1.986	63.250	3.071	1.00	43.33	C
ATOM	1918	CB	LEU	A	268	-1.804	64.094	1.815	1.00	39.63	C
ATOM	1919	CG	LEU	A	268	-2.880	65.183	1.867	1.00	40.57	C
ATOM	1920	CD1	LEU	A	268	-3.503	65.223	3.137	1.00	43.20	C
ATOM	1921	CD2	LEU	A	268	-2.379	66.495	1.587	1.00	41.24	C
ATOM	1922	C	LEU	A	268	-2.095	61.833	2.773	1.00	44.87	C
ATOM	1923	O	LEU	A	268	-3.070	61.134	3.133	1.00	44.80	O
ATOM	1924	N	MET	A	269	-1.058	61.335	2.176	1.00	47.37	N
ATOM	1925	CA	MET	A	269	-1.230	59.989	1.729	1.00	52.26	C
ATOM	1926	CB	MET	A	269	-0.105	59.560	0.871	1.00	54.48	C
ATOM	1927	CG	MET	A	269	1.249	59.749	1.451	1.00	62.43	C
ATOM	1928	SD	MET	A	269	2.136	58.374	0.544	1.00	79.02	S
ATOM	1929	CE	MET	A	269	2.047	59.425	1.262	1.00	79.13	C
ATOM	1930	C	MET	A	269	-1.338	58.978	0.052	1.00	46.76	C
ATOM	1931	O	MET	A	269	-1.898	57.838	2.104	1.00	47.09	O
ATOM	1932	N	LYS	A	270	-0.823	59.351	4.128	1.00	49.52	N
ATOM	1933	CA	LYS	A	270	-1.032	58.475	5.353	1.00	51.19	C
ATOM	1934	CB	LYS	A	270	-0.319	59.080	6.515	1.00	52.51	C
ATOM	1935	CG	LYS	A	270	-0.604	58.493	7.890	1.00	50.38	C
ATOM	1936	CD	LYS	A	270	-0.323	57.138	7.851	1.00	52.96	C
ATOM	1937	CE	LYS	A	270	-0.255	56.737	9.294	1.00	57.26	C
ATOM	1938	NZ	LYS	A	270	0.165	55.374	9.332	1.00	55.71	N
ATOM	1939	C	LYS	A	270	-2.536	58.472	5.708	1.00	53.41	C
ATOM	1940	O	LYS	A	270	-3.060	57.541	6.199	1.00	50.26	O
ATOM	1941	N	MET	A	271	-3.261	59.550	5.411	1.00	56.26	N
ATOM	1942	CA	MET	A	271	-4.671	59.445	5.600	1.00	59.41	C
ATOM	1943	CB	MET	A	271	-5.285	60.761	5.349	1.00	60.59	C
ATOM	1944	CG	MET	A	271	-4.562	61.840	6.166	1.00	62.77	C
ATOM	1945	SD	MET	A	271	-5.588	63.288	6.657	1.00	66.49	S
ATOM	1946	CE	MET	A	271	-5.733	64.253	5.426	1.00	56.57	C
ATOM	1947	C	MET	A	271	-5.247	58.407	4.686	1.00	61.97	C
ATOM	1948	O	MET	A	271	-5.829	57.376	5.123	1.00	62.66	O
ATOM	1949	N	GLU	A	272	-5.058	58.636	3.410	1.00	65.01	N
ATOM	1950	CA	GLU	A	272	-5.518	57.682	2.454	1.00	68.17	C
ATOM	1951	CB	GLU	A	272	-4.830	57.758	1.117	1.00	72.18	C
ATOM	1952	CG	GLU	A	272	-5.811	57.257	0.002	1.00	79.14	C
ATOM	1953	CD	GLU	A	272	-6.856	58.399	-0.303	1.00	82.73	C
ATOM	1954	OE1	GLU	A	272	-7.542	58.926	0.635	1.00	77.67	O
ATOM	1955	OE2	GLU	A	272	-6.944	58.866	-1.481	1.00	87.03	O
ATOM	1956	C	GLU	A	272	-5.345	56.303	2.961	1.00	68.60	C
ATOM	1957	O	GLU	A	272	-6.255	55.644	2.651	1.00	71.65	O
ATOM	1958	N	LYS	A	273	-4.247	55.807	3.608	1.00	67.72	N
ATOM	1959	CA	LYS	A	273	-4.291	54.425	4.150	1.00	68.25	C
ATOM	1960	CB	LYS	A	273	-2.949	53.956	4.700	1.00	67.78	C
ATOM	1961	CG	LYS	A	273	-1.924	53.978	3.569	1.00	70.11	C
ATOM	1962	CD	LYS	A	273	-0.531	53.290	4.008	1.00	75.48	C
ATOM	1963	CE	LYS	A	273	-0.722	51.819	4.504	1.00	76.72	C
ATOM	1964	NZ	LYS	A	273	-0.750	51.705	6.067	1.00	77.70	N
ATOM	1965	C	LYS	A	273	-5.280	54.755	5.194	1.00	70.08	C
ATOM	1966	O	LYS	A	273	-6.246	55.346	4.851	1.00	69.12	O
ATOM	1967	N	GLU	A	274	-5.039	54.625	6.472	1.00	71.56	N
ATOM	1968	CA	GLU	A	274	-6.053	54.902	7.420	1.00	73.92	C
ATOM	1969	CB	GLU	A	274	-5.602	56.094	8.301	1.00	74.47	C
ATOM	1970	CG	GLU	A	274	-4.482	55.776	9.331	1.00	76.15	C
ATOM	1971	CD	GLU	A	274	-4.769	54.631	10.250	1.00	79.81	C
ATOM	1972	OE1	GLU	A	274	-5.800	54.702	10.976	1.00	82.60	O
ATOM	1973	OE2	GLU	A	274	-3.959	53.634	10.145	1.00	85.06	O
ATOM	1974	C	GLU	A	274	-7.542	54.952	6.930	1.00	75.99	C

124/514

Figure 2

ATOM	1975	O	GLU A 274	-8.298	54.061	7.262	1.00	76.50	O
ATOM	1976	N	LYS A 275	-7.987	55.603	5.915	1.00	79.03	N
ATOM	1977	CA	LYS A 275	-9.369	56.086	5.691	1.00	81.31	C
ATOM	1978	CB	LYS A 275	-9.427	56.476	4.223	1.00	79.85	C
ATOM	1979	CG	LYS A 275	-9.392	55.229	3.316	1.00	83.94	C
ATOM	1980	CD	LYS A 275	-10.183	55.430	1.894	1.00	87.58	C
ATOM	1981	CE	LYS A 275	-9.636	56.730	1.095	1.00	89.42	C
ATOM	1982	NZ	LYS A 275	-10.143	57.087	-0.295	1.00	83.10	N
ATOM	1983	C	LYS A 275	-10.541	55.174	5.996	1.00	82.63	C
ATOM	1984	O	LYS A 275	-11.440	55.422	6.779	1.00	86.34	O
ATOM	1985	N	HIS A 276	-10.698	54.147	5.376	1.00	82.31	N
ATOM	1986	CA	HIS A 276	-11.578	53.189	5.764	1.00	84.27	C
ATOM	1987	CB	HIS A 276	-11.042	51.982	5.083	1.00	85.32	C
ATOM	1988	CG	HIS A 276	-11.204	52.023	3.573	1.00	91.03	C
ATOM	1989	ND1	HIS A 276	-12.281	51.450	2.907	1.00	94.29	N
ATOM	1990	CE1	HIS A 276	-12.128	51.615	1.597	1.00	99.15	C
ATOM	1991	NE2	HIS A 276	-10.991	52.286	1.390	1.00	98.96	N
ATOM	1992	CD2	HIS A 276	-10.392	52.544	2.603	1.00	96.99	C
ATOM	1993	C	HIS A 276	-11.697	52.914	7.197	1.00	83.19	C
ATOM	1994	O	HIS A 276	-12.818	52.819	7.704	1.00	86.11	O
ATOM	1995	N	ASN A 277	-10.617	52.934	7.885	1.00	82.59	N
ATOM	1996	CA	ASN A 277	-10.726	52.556	9.288	1.00	84.14	C
ATOM	1997	CB	ASN A 277	-9.618	51.644	9.686	1.00	84.89	C
ATOM	1998	CG	ASN A 277	-9.134	50.782	8.532	1.00	89.28	C
ATOM	1999	OD1	ASN A 277	-9.185	51.169	7.276	1.00	85.73	O
ATOM	2000	ND2	ASN A 277	-8.697	49.563	8.927	1.00	90.42	N
ATOM	2001	C	ASN A 277	-10.739	53.922	10.026	1.00	84.74	C
ATOM	2002	O	ASN A 277	-9.716	54.377	10.466	1.00	86.35	O
ATOM	2003	N	GLN A 278	-11.919	54.544	10.216	1.00	83.91	N
ATOM	2004	CA	GLN A 278	-12.076	55.961	10.450	1.00	81.65	C
ATOM	2005	CB	GLN A 278	-13.288	56.441	9.727	1.00	84.27	C
ATOM	2006	CG	GLN A 278	-13.145	57.898	9.156	1.00	86.90	C
ATOM	2007	CD	GLN A 278	-11.949	57.948	8.075	1.00	88.34	C
ATOM	2008	OE1	GLN A 278	-12.149	57.906	6.811	1.00	88.29	O
ATOM	2009	NE2	GLN A 278	-10.754	57.838	8.587	1.00	87.75	N
ATOM	2010	C	GLN A 278	-12.135	56.528	11.743	1.00	79.80	C
ATOM	2011	O	GLN A 278	-12.332	57.723	11.856	1.00	82.41	O
ATOM	2012	N	PRO A 279	-11.990	55.791	12.800	1.00	77.32	N
ATOM	2013	CA	PRO A 279	-11.842	56.523	14.093	1.00	74.22	C
ATOM	2014	CB	PRO A 279	-11.519	55.489	15.079	1.00	74.87	C
ATOM	2015	CG	PRO A 279	-12.211	54.288	14.473	1.00	80.84	C
ATOM	2016	CD	PRO A 279	-11.948	54.348	12.913	1.00	78.08	C
ATOM	2017	C	PRO A 279	-10.661	57.436	13.757	1.00	70.11	C
ATOM	2018	O	PRO A 279	-10.974	58.572	13.756	1.00	67.66	O
ATOM	2019	N	SER A 280	-9.489	56.924	13.362	1.00	66.29	N
ATOM	2020	CA	SER A 280	-8.236	57.663	12.897	1.00	65.45	C
ATOM	2021	CB	SER A 280	-8.365	58.064	11.504	1.00	66.62	C
ATOM	2022	OG	SER A 280	-7.062	58.508	11.080	1.00	71.79	O
ATOM	2023	C	SER A 280	-7.469	58.873	13.540	1.00	63.48	C
ATOM	2024	O	SER A 280	-7.932	59.929	13.721	1.00	62.83	O
ATOM	2025	N	GLU A 281	-6.182	58.756	13.748	1.00	62.00	N
ATOM	2026	CA	GLU A 281	-5.431	59.795	14.443	1.00	55.65	C
ATOM	2027	CB	GLU A 281	-4.371	59.042	15.124	1.00	55.29	C
ATOM	2028	CG	GLU A 281	-4.282	59.296	16.601	1.00	59.76	C
ATOM	2029	CD	GLU A 281	-5.491	59.340	17.469	1.00	56.31	C
ATOM	2030	OE1	GLU A 281	-6.050	60.500	17.672	1.00	63.31	O
ATOM	2031	OE2	GLU A 281	-5.818	58.286	18.013	1.00	52.28	O
ATOM	2032	C	GLU A 281	-4.886	60.890	13.507	1.00	53.12	C
ATOM	2033	O	GLU A 281	-4.635	62.127	13.949	1.00	52.33	O
ATOM	2034	N	PHE A 282	-4.726	60.546	12.221	1.00	48.31	N
ATOM	2035	CA	PHE A 282	-4.245	61.526	11.243	1.00	47.05	C
ATOM	2036	CB	PHE A 282	-3.458	60.785	10.169	1.00	47.28	C
ATOM	2037	CG	PHE A 282	-2.384	60.141	10.715	1.00	44.72	C
ATOM	2038	CD1	PHE A 282	-2.571	59.041	11.392	1.00	43.74	C
ATOM	2039	CE1	PHE A 282	-1.556	58.439	12.002	1.00	49.47	C
ATOM	2040	CZ	PHE A 282	-0.277	59.047	11.928	1.00	50.30	C
ATOM	2041	CE2	PHE A 282	-0.190	60.242	11.254	1.00	44.35	C
ATOM	2042	CD2	PHE A 282	-1.202	60.751	10.685	1.00	45.98	C
ATOM	2043	C	PHE A 282	-5.476	62.160	10.611	1.00	45.75	C
ATOM	2044	O	PHE A 282	-6.300	61.427	10.185	1.00	49.84	O
ATOM	2045	N	THR A 283	-5.565	63.458	10.519	1.00	42.28	N
ATOM	2046	CA	THR A 283	-6.647	64.234	9.992	1.00	40.99	C
ATOM	2047	CB	THR A 283	-7.618	64.426	11.099	1.00	41.44	C
ATOM	2048	OG1	THR A 283	-7.030	65.387	12.067	1.00	43.00	O
ATOM	2049	CG2	THR A 283	-7.919	63.186	11.883	1.00	37.19	C
ATOM	2050	C	THR A 283	-6.177	65.716	9.670	1.00	41.97	C

125/514

Figure 2

ATOM	2051	O	THR A 283	-5.219	66.181	10.184	1.00	45.45	O
ATOM	2052	N	ILE A 284	-6.805	66.484	8.839	1.00	41.12	N
ATOM	2053	CA	ILE A 284	-6.293	67.740	8.523	1.00	39.63	C
ATOM	2054	CB	ILE A 284	-7.266	68.486	7.690	1.00	38.71	C
ATOM	2055	CG1	ILE A 284	-7.442	67.953	6.272	1.00	40.86	C
ATOM	2056	CD1	ILE A 284	-6.075	67.474	5.603	1.00	44.76	C
ATOM	2057	CG2	ILE A 284	-6.755	69.775	7.386	1.00	44.96	C
ATOM	2058	C	ILE A 284	-6.048	68.397	9.865	1.00	44.45	C
ATOM	2059	O	ILE A 284	-5.068	69.016	10.013	1.00	43.03	O
ATOM	2060	N	GLU A 285	-6.900	68.246	10.902	1.00	46.28	N
ATOM	2061	CA	GLU A 285	-6.676	69.113	12.080	1.00	49.00	C
ATOM	2062	CB	GLU A 285	-7.700	68.831	13.223	1.00	52.48	C
ATOM	2063	CG	GLU A 285	-8.578	69.945	13.771	1.00	59.53	C
ATOM	2064	CD	GLU A 285	-8.152	70.635	15.142	1.00	71.58	C
ATOM	2065	OE1	GLU A 285	-8.248	70.063	16.353	1.00	63.52	O
ATOM	2066	OE2	GLU A 285	-7.693	71.860	15.040	1.00	84.17	O
ATOM	2067	C	GLU A 285	-5.266	68.820	12.673	1.00	49.46	C
ATOM	2068	O	GLU A 285	-4.541	69.671	12.980	1.00	50.26	O
ATOM	2069	N	SER A 286	-4.912	67.539	12.828	1.00	49.55	N
ATOM	2070	CA	SER A 286	-3.679	67.045	13.381	1.00	43.81	C
ATOM	2071	CB	SER A 286	-3.663	65.530	13.656	1.00	44.46	C
ATOM	2072	OG	SER A 286	-4.429	64.524	12.980	1.00	44.02	O
ATOM	2073	C	SER A 286	-2.526	67.459	12.553	1.00	46.39	C
ATOM	2074	O	SER A 286	-1.433	67.770	13.164	1.00	42.30	O
ATOM	2075	N	LEU A 287	-2.713	67.509	11.192	1.00	44.89	N
ATOM	2076	CA	LEU A 287	-1.616	67.817	10.392	1.00	41.67	C
ATOM	2077	CB	LEU A 287	-1.972	67.598	8.985	1.00	45.61	C
ATOM	2078	CG	LEU A 287	-0.926	68.170	8.076	1.00	47.32	C
ATOM	2079	CD1	LEU A 287	0.131	67.395	8.215	1.00	42.53	C
ATOM	2080	CD2	LEU A 287	-1.439	68.228	6.536	1.00	51.66	C
ATOM	2081	C	LEU A 287	-1.390	69.163	10.767	1.00	42.11	C
ATOM	2082	O	LEU A 287	-0.360	69.536	11.131	1.00	46.58	O
ATOM	2083	N	GLU A 288	-2.293	70.020	10.747	1.00	43.75	N
ATOM	2084	CA	GLU A 288	-1.930	71.403	11.071	1.00	44.23	C
ATOM	2085	CB	GLU A 288	-3.205	72.277	11.143	1.00	45.20	C
ATOM	2086	CG	GLU A 288	-3.681	73.220	10.036	1.00	47.29	C
ATOM	2087	CD	GLU A 288	-5.256	73.418	10.174	1.00	57.36	C
ATOM	2088	OE1	GLU A 288	-5.819	73.600	11.307	1.00	57.36	O
ATOM	2089	OE2	GLU A 288	-6.001	73.343	9.182	1.00	63.32	O
ATOM	2090	C	GLU A 288	-1.265	71.549	12.400	1.00	42.60	C
ATOM	2091	O	GLU A 288	-0.385	72.364	12.553	1.00	45.15	O
ATOM	2092	N	ASN A 289	-1.731	70.817	13.352	1.00	38.68	N
ATOM	2093	CA	ASN A 289	-1.269	70.936	14.635	1.00	37.54	C
ATOM	2094	CB	ASN A 289	-1.989	70.038	15.582	1.00	40.93	C
ATOM	2095	CG	ASN A 289	-3.396	70.554	16.121	1.00	43.71	C
ATOM	2096	OD1	ASN A 289	-3.778	71.559	15.672	1.00	51.05	O
ATOM	2097	ND2	ASN A 289	-4.069	69.899	17.031	1.00	47.51	N
ATOM	2098	C	ASN A 289	0.190	70.454	14.658	1.00	39.59	C
ATOM	2099	O	ASN A 289	1.047	71.076	15.257	1.00	43.44	O
ATOM	2100	N	THR A 290	0.507	69.317	14.055	1.00	38.78	N
ATOM	2101	CA	THR A 290	1.873	68.853	13.939	1.00	35.47	C
ATOM	2102	CB	THR A 290	1.850	67.608	13.379	1.00	36.45	C
ATOM	2103	OG1	THR A 290	1.237	66.700	14.379	1.00	37.32	O
ATOM	2104	CG2	THR A 290	3.240	66.973	13.279	1.00	37.32	C
ATOM	2105	C	THR A 290	2.712	69.835	13.226	1.00	34.13	C
ATOM	2106	O	THR A 290	3.820	70.242	13.646	1.00	36.76	O
ATOM	2107	N	ALA A 291	2.186	70.355	12.188	1.00	34.77	N
ATOM	2108	CA	ALA A 291	2.947	71.397	11.516	1.00	31.50	C
ATOM	2109	CB	ALA A 291	2.181	71.885	10.337	1.00	26.64	C
ATOM	2110	C	ALA A 291	3.289	72.511	12.482	1.00	30.52	C
ATOM	2111	O	ALA A 291	4.450	72.868	12.533	1.00	33.35	O
ATOM	2112	N	VAL A 292	2.352	73.071	13.248	1.00	29.38	N
ATOM	2113	CA	VAL A 292	2.798	74.186	14.008	1.00	31.10	C
ATOM	2114	CB	VAL A 292	1.629	74.935	14.656	1.00	34.94	C
ATOM	2115	CG1	VAL A 292	0.536	74.974	13.696	1.00	33.68	C
ATOM	2116	CG2	VAL A 292	1.138	74.226	15.921	1.00	38.70	C
ATOM	2117	C	VAL A 292	3.840	73.750	15.070	1.00	33.22	C
ATOM	2118	O	VAL A 292	4.821	74.431	15.249	1.00	34.24	O
ATOM	2119	N	ASP A 293	3.705	72.607	15.679	1.00	30.77	N
ATOM	2120	CA	ASP A 293	4.634	72.183	16.583	1.00	31.62	C
ATOM	2121	CB	ASP A 293	4.208	70.755	17.028	1.00	35.74	C
ATOM	2122	CG	ASP A 293	3.241	70.772	18.122	1.00	34.03	C
ATOM	2123	OD1	ASP A 293	2.887	69.650	18.710	1.00	38.26	O
ATOM	2124	OD2	ASP A 293	2.731	71.949	18.387	1.00	36.48	O
ATOM	2125	C	ASP A 293	6.060	72.140	15.950	1.00	33.78	C
ATOM	2126	O	ASP A 293	7.020	72.835	16.478	1.00	31.15	O

126/514

Figure 2

ATOM	2127	N	LEU A 294	6.216	71.358	14.843	1.00	32.65	N
ATOM	2128	CA	LEU A 294	7.496	71.295	14.148	1.00	29.00	C
ATOM	2129	CB	LEU A 294	7.373	70.642	12.803	1.00	30.44	C
ATOM	2130	CG	LEU A 294	6.844	69.174	12.961	1.00	30.08	C
ATOM	2131	CD1	LEU A 294	7.014	68.510	11.705	1.00	35.77	C
ATOM	2132	CD2	LEU A 294	7.629	68.369	13.802	1.00	33.64	C
ATOM	2133	C	LEU A 294	7.933	72.709	14.035	1.00	28.04	C
ATOM	2134	O	LEU A 294	8.948	73.036	14.541	1.00	27.02	O
ATOM	2135	N	PHE A 295	7.191	73.622	13.523	1.00	28.12	N
ATOM	2136	CA	PHE A 295	7.796	75.105	13.409	1.00	26.77	C
ATOM	2137	CB	PHE A 295	6.867	76.167	12.743	1.00	27.67	C
ATOM	2138	CG	PHE A 295	6.775	76.041	11.270	1.00	25.92	C
ATOM	2139	CD1	PHE A 295	7.724	76.458	10.496	1.00	28.31	C
ATOM	2140	CE1	PHE A 295	7.621	76.296	9.126	1.00	35.34	C
ATOM	2141	CZ	PHE A 295	6.650	75.719	8.589	1.00	29.14	C
ATOM	2142	CE2	PHE A 295	5.765	75.288	9.269	1.00	30.59	C
ATOM	2143	CD2	PHE A 295	5.848	75.439	10.736	1.00	30.70	C
ATOM	2144	C	PHE A 295	8.236	75.611	14.636	1.00	27.83	C
ATOM	2145	O	PHE A 295	9.212	76.348	14.733	1.00	31.17	O
ATOM	2146	N	GLY A 296	7.535	75.238	15.690	1.00	31.24	N
ATOM	2147	CA	GLY A 296	7.826	75.929	16.904	1.00	31.61	C
ATOM	2148	C	GLY A 296	9.007	75.278	17.642	1.00	35.18	C
ATOM	2149	O	GLY A 296	9.864	76.014	18.179	1.00	33.55	O
ATOM	2150	N	ALA A 297	8.966	73.946	17.671	1.00	32.73	N
ATOM	2151	CA	ALA A 297	9.985	73.233	18.258	1.00	32.58	C
ATOM	2152	CB	ALA A 297	9.584	71.822	18.497	1.00	32.65	C
ATOM	2153	C	ALA A 297	11.178	73.260	17.344	1.00	35.91	C
ATOM	2154	O	ALA A 297	12.195	72.800	17.805	1.00	44.25	O
ATOM	2155	N	GLY A 298	11.129	73.716	16.107	1.00	35.80	N
ATOM	2156	CA	GLY A 298	12.293	73.502	15.200	1.00	34.36	C
ATOM	2157	C	GLY A 298	12.888	74.811	15.127	1.00	37.82	C
ATOM	2158	O	GLY A 298	13.935	74.965	14.624	1.00	43.53	O
ATOM	2159	N	THR A 299	12.261	75.890	15.536	1.00	37.79	N
ATOM	2160	CA	THR A 299	12.919	77.155	15.383	1.00	33.74	C
ATOM	2161	CB	THR A 299	11.847	78.121	14.905	1.00	35.00	C
ATOM	2162	OG1	THR A 299	11.324	77.516	13.569	1.00	37.85	O
ATOM	2163	CG2	THR A 299	12.615	79.447	14.493	1.00	36.32	C
ATOM	2164	C	THR A 299	13.684	77.772	16.480	1.00	34.01	C
ATOM	2165	O	THR A 299	14.870	78.056	16.366	1.00	35.66	O
ATOM	2166	N	GLU A 300	13.038	78.151	17.562	1.00	33.44	N
ATOM	2167	CA	GLU A 300	13.581	78.878	18.667	1.00	30.31	C
ATOM	2168	CB	GLU A 300	12.543	78.946	19.696	1.00	35.71	C
ATOM	2169	CG	GLU A 300	12.921	79.475	21.121	1.00	40.32	C
ATOM	2170	CD	GLU A 300	13.713	80.726	20.905	1.00	45.49	C
ATOM	2171	OE1	GLU A 300	14.149	81.355	21.948	1.00	51.44	O
ATOM	2172	OE2	GLU A 300	13.849	81.126	19.683	1.00	47.21	O
ATOM	2173	C	GLU A 300	14.856	78.243	19.224	1.00	32.28	C
ATOM	2174	O	GLU A 300	15.840	79.040	19.247	1.00	32.23	O
ATOM	2175	N	THR A 301	14.962	76.932	19.636	1.00	26.39	N
ATOM	2176	CA	THR A 301	16.185	76.397	20.122	1.00	25.76	C
ATOM	2177	CB	THR A 301	16.049	74.998	20.496	1.00	29.47	C
ATOM	2178	OG1	THR A 301	14.849	74.790	21.280	1.00	26.81	O
ATOM	2179	CG2	THR A 301	17.169	74.694	21.437	1.00	35.25	C
ATOM	2180	C	THR A 301	17.302	76.321	19.217	1.00	26.55	C
ATOM	2181	O	THR A 301	18.443	76.732	19.530	1.00	26.72	O
ATOM	2182	N	THR A 302	17.075	75.790	18.020	1.00	24.67	N
ATOM	2183	CA	THR A 302	18.143	75.823	17.094	1.00	25.17	C
ATOM	2184	CB	THR A 302	17.669	75.371	15.901	1.00	28.25	C
ATOM	2185	OG1	THR A 302	17.220	74.068	15.986	1.00	31.64	O
ATOM	2186	CG2	THR A 302	18.632	75.292	14.755	1.00	32.52	C
ATOM	2187	C	THR A 302	18.702	77.232	16.905	1.00	26.93	C
ATOM	2188	O	THR A 302	20.023	77.617	16.911	1.00	34.89	O
ATOM	2189	N	SER A 303	17.833	78.099	16.648	1.00	26.87	N
ATOM	2190	CA	SER A 303	18.296	79.515	16.369	1.00	27.77	C
ATOM	2191	CB	SER A 303	17.031	80.399	16.298	1.00	27.41	C
ATOM	2192	OG	SER A 303	17.303	81.745	16.138	1.00	32.05	O
ATOM	2193	C	SER A 303	19.174	79.967	17.474	1.00	30.94	C
ATOM	2194	O	SER A 303	20.292	80.453	17.260	1.00	32.66	O
ATOM	2195	N	THR A 304	18.686	79.819	18.705	1.00	30.04	N
ATOM	2196	CA	THR A 304	19.414	80.321	19.759	1.00	28.57	C
ATOM	2197	CB	THR A 304	18.440	80.215	21.118	1.00	31.60	C
ATOM	2198	OG1	THR A 304	17.316	80.981	20.821	1.00	29.38	O
ATOM	2199	CG2	THR A 304	19.014	80.910	22.200	1.00	31.67	C
ATOM	2200	C	THR A 304	20.718	79.569	19.995	1.00	27.72	C
ATOM	2201	O	THR A 304	21.735	80.213	20.465	1.00	29.57	O
ATOM	2202	N	THR A 305	20.782	78.291	19.704	1.00	26.23	N

127/514

Figure 2

ATOM	2203	CA	THR	A	305	22.006	77.565	19.932	1.00	21.78	C
ATOM	2204	CB	THR	A	305	21.771	76.205	19.647	1.00	24.53	C
ATOM	2205	OG1	THR	A	305	20.898	75.649	20.646	1.00	25.08	O
ATOM	2206	CG2	THR	A	305	23.118	75.523	19.802	1.00	22.60	C
ATOM	2207	C	THR	A	305	22.982	78.156	19.001	1.00	21.81	C
ATOM	2208	O	THR	A	305	24.068	78.442	19.374	1.00	23.89	O
ATOM	2209	N	LEU	A	306	22.616	78.422	17.763	1.00	23.18	N
ATOM	2210	CA	LEU	A	306	23.541	79.184	16.819	1.00	22.76	C
ATOM	2211	CB	LEU	A	306	22.985	79.391	15.352	1.00	23.83	C
ATOM	2212	CG	LEU	A	306	22.663	78.002	14.732	1.00	28.74	C
ATOM	2213	CD1	LEU	A	306	21.554	77.934	13.685	1.00	28.72	C
ATOM	2214	CD2	LEU	A	306	24.032	77.664	14.171	1.00	30.46	C
ATOM	2215	C	LEU	A	306	23.971	80.492	17.257	1.00	22.63	C
ATOM	2216	O	LEU	A	306	25.038	80.822	17.060	1.00	26.24	O
ATOM	2217	N	ARG	A	307	23.098	81.326	17.779	1.00	24.78	N
ATOM	2218	CA	ARG	A	307	23.370	82.732	18.022	1.00	26.27	C
ATOM	2219	CB	ARG	A	307	22.139	83.393	18.557	1.00	23.06	C
ATOM	2220	CG	ARG	A	307	22.152	84.921	18.430	1.00	31.48	C
ATOM	2221	CD	ARG	A	307	21.080	85.680	19.396	1.00	29.59	C
ATOM	2222	NE	ARG	A	307	19.861	84.980	19.462	1.00	33.88	N
ATOM	2223	C2	ARG	A	307	19.047	84.825	20.383	1.00	26.22	C
ATOM	2224	NH1	ARG	A	307	19.200	85.366	21.495	1.00	37.44	N
ATOM	2225	NH2	ARG	A	307	18.020	84.061	20.193	1.00	38.03	N
ATOM	2226	C	ARG	A	307	24.479	82.616	19.227	1.00	28.83	C
ATOM	2227	O	ARG	A	307	25.513	83.294	19.195	1.00	28.50	O
ATOM	2228	N	TYR	A	308	24.234	81.667	20.174	1.00	27.67	N
ATOM	2229	CA	TYR	A	308	25.060	81.433	21.384	1.00	24.52	C
ATOM	2230	CB	TYR	A	308	24.298	80.576	22.251	1.00	21.67	C
ATOM	2231	CG	TYR	A	308	24.530	81.080	23.677	1.00	21.52	C
ATOM	2232	CD1	TYR	A	308	23.572	80.923	24.645	1.00	23.96	C
ATOM	2233	CE1	TYR	A	308	23.700	81.201	25.897	1.00	24.04	C
ATOM	2234	C2	TYR	A	308	24.781	81.689	26.314	1.00	30.85	C
ATOM	2235	OH	TYR	A	308	24.661	81.971	27.686	1.00	24.21	O
ATOM	2236	CE2	TYR	A	308	25.821	81.946	25.444	1.00	29.79	C
ATOM	2237	CD2	TYR	A	308	25.660	81.520	24.043	1.00	21.84	C
ATOM	2238	C	TYR	A	308	26.325	80.859	20.921	1.00	22.22	C
ATOM	2239	O	TYR	A	308	27.344	81.261	21.475	1.00	20.73	O
ATOM	2240	N	ALA	A	309	26.265	79.951	19.946	1.00	18.79	N
ATOM	2241	CA	ALA	A	309	27.554	79.384	19.406	1.00	21.83	C
ATOM	2242	CB	ALA	A	309	27.325	78.449	18.380	1.00	19.94	C
ATOM	2243	C	ALA	A	309	28.414	80.486	18.917	1.00	22.82	C
ATOM	2244	O	ALA	A	309	29.506	80.640	19.379	1.00	28.18	O
ATOM	2245	N	LEU	A	310	27.950	81.360	18.017	1.00	27.23	N
ATOM	2246	CA	LEU	A	310	28.776	82.484	17.547	1.00	23.50	C
ATOM	2247	CB	LEU	A	310	28.029	83.228	16.549	1.00	24.48	C
ATOM	2248	CG	LEU	A	310	27.635	82.488	15.324	1.00	25.22	C
ATOM	2249	CD1	LEU	A	310	27.486	83.676	14.395	1.00	25.14	C
ATOM	2250	CD2	LEU	A	310	28.642	81.499	14.596	1.00	26.82	C
ATOM	2251	C	LEU	A	310	29.251	83.353	18.717	1.00	26.41	C
ATOM	2252	O	LEU	A	310	30.411	83.644	18.832	1.00	30.80	O
ATOM	2253	N	LEU	A	311	28.416	83.772	19.666	1.00	29.20	N
ATOM	2254	CA	LEU	A	311	28.926	84.538	20.850	1.00	28.58	C
ATOM	2255	CB	LEU	A	311	27.865	84.641	21.912	1.00	27.48	C
ATOM	2256	CG	LEU	A	311	28.254	85.455	23.157	1.00	25.82	C
ATOM	2257	CD1	LEU	A	311	28.603	87.016	22.803	1.00	27.17	C
ATOM	2258	CD2	LEU	A	311	27.048	85.656	23.932	1.00	25.25	C
ATOM	2259	C	LEU	A	311	30.160	83.875	21.476	1.00	28.66	C
ATOM	2260	O	LEU	A	311	31.190	84.488	21.627	1.00	31.05	O
ATOM	2261	N	LEU	A	312	30.057	82.582	21.779	1.00	27.21	N
ATOM	2262	CA	LEU	A	312	31.162	81.785	22.344	1.00	25.35	C
ATOM	2263	CB	LEU	A	312	30.722	80.407	22.632	1.00	19.01	C
ATOM	2264	CG	LEU	A	312	29.670	80.399	23.748	1.00	15.23	C
ATOM	2265	CD1	LEU	A	312	28.871	79.098	23.827	1.00	16.68	C
ATOM	2266	CD2	LEU	A	312	30.135	80.600	24.947	1.00	14.21	C
ATOM	2267	C	LEU	A	312	32.343	81.788	21.382	1.00	27.23	C
ATOM	2268	O	LEU	A	312	33.467	81.943	21.788	1.00	28.00	O
ATOM	2269	N	LEU	A	313	32.115	81.616	20.092	1.00	29.03	N
ATOM	2270	CA	LEU	A	313	33.287	81.607	19.233	1.00	31.07	C
ATOM	2271	CB	LEU	A	313	32.914	81.244	17.875	1.00	29.16	C
ATOM	2272	CG	LEU	A	313	32.534	79.752	17.785	1.00	29.36	C
ATOM	2273	CD1	LEU	A	313	32.059	79.301	16.379	1.00	20.18	C
ATOM	2274	CD2	LEU	A	313	33.647	79.000	18.082	1.00	27.55	C
ATOM	2275	C	LEU	A	313	33.944	83.005	19.221	1.00	33.55	C
ATOM	2276	O	LEU	A	313	35.118	83.086	18.779	1.00	36.59	O
ATOM	2277	N	LEU	A	314	33.262	84.103	19.567	1.00	34.07	N
ATOM	2278	CA	LEU	A	314	33.947	85.408	19.539	1.00	32.67	C

Figure 2

ATOM	2279	CB	LEU A 314	32.968	86.470	19.600	1.00	34.30	C
ATOM	2280	CG	LEU A 314	32.333	87.127	18.407	1.00	38.46	C
ATOM	2281	CD1	LEU A 314	31.650	88.505	18.905	1.00	39.11	C
ATOM	2282	CD2	LEU A 314	33.207	87.385	17.363	1.00	37.93	C
ATOM	2283	C	LEU A 314	34.659	85.464	20.913	1.00	35.34	C
ATOM	2284	O	LEU A 314	35.702	85.980	21.078	1.00	36.28	O
ATOM	2285	N	LYS A 315	34.030	84.989	21.947	1.00	35.60	N
ATOM	2286	CA	LYS A 315	34.668	85.138	23.237	1.00	36.72	C
ATOM	2287	CB	LYS A 315	33.825	84.593	24.280	1.00	36.49	C
ATOM	2288	CG	LYS A 315	34.402	84.658	25.623	1.00	40.30	C
ATOM	2289	CD	LYS A 315	34.301	85.937	26.333	1.00	43.42	C
ATOM	2290	CE	LYS A 315	34.679	86.011	27.828	1.00	41.04	C
ATOM	2291	NZ	LYS A 315	35.207	87.500	28.088	1.00	54.42	N
ATOM	2292	C	LYS A 315	35.908	84.379	23.206	1.00	41.41	C
ATOM	2293	O	LYS A 315	36.903	84.867	23.601	1.00	44.19	O
ATOM	2294	N	HIS A 316	35.926	83.185	22.626	1.00	42.73	N
ATOM	2295	CA	HIS A 316	37.145	82.349	22.544	1.00	40.10	C
ATOM	2296	CB	HIS A 316	36.771	80.964	23.109	1.00	36.40	C
ATOM	2297	CG	HIS A 316	36.079	81.088	24.353	1.00	36.57	C
ATOM	2298	ND1	HIS A 316	36.645	80.830	25.526	1.00	36.20	N
ATOM	2299	CE1	HIS A 316	35.728	81.016	26.517	1.00	36.79	C
ATOM	2300	NE2	HIS A 316	34.572	81.324	25.988	1.00	37.75	N
ATOM	2301	CD2	HIS A 316	34.781	81.460	24.625	1.00	46.13	C
ATOM	2302	C	HIS A 316	37.867	82.163	21.176	1.00	38.56	C
ATOM	2303	O	HIS A 316	37.752	81.164	20.505	1.00	38.71	O
ATOM	2304	N	PRO A 317	38.573	83.108	20.692	1.00	36.45	N
ATOM	2305	CA	PRO A 317	39.134	82.953	19.350	1.00	33.11	C
ATOM	2306	CB	PRO A 317	39.857	84.257	19.124	1.00	31.74	C
ATOM	2307	CG	PRO A 317	40.035	84.803	20.401	1.00	37.91	C
ATOM	2308	CD	PRO A 317	38.860	84.362	21.324	1.00	36.42	C
ATOM	2309	C	PRO A 317	40.057	81.753	19.140	1.00	35.89	C
ATOM	2310	O	PRO A 317	40.200	81.253	18.097	1.00	39.54	O
ATOM	2311	N	GLU A 318	40.733	81.277	20.130	1.00	36.29	N
ATOM	2312	CA	GLU A 318	41.580	80.230	19.984	1.00	35.01	C
ATOM	2313	CB	GLU A 318	42.158	79.806	21.242	1.00	39.43	C
ATOM	2314	CG	GLU A 318	43.601	79.770	21.448	1.00	46.81	C
ATOM	2315	CD	GLU A 318	44.118	81.120	21.749	1.00	63.13	C
ATOM	2316	OE1	GLU A 318	44.593	81.784	20.771	1.00	73.88	O
ATOM	2317	OE2	GLU A 318	44.052	81.548	22.953	1.00	73.47	O
ATOM	2318	C	GLU A 318	40.723	79.030	19.601	1.00	33.61	C
ATOM	2319	O	GLU A 318	41.181	78.239	18.686	1.00	40.36	O
ATOM	2320	N	VAL A 319	39.567	78.804	20.153	1.00	29.98	N
ATOM	2321	CA	VAL A 319	38.626	77.694	19.732	1.00	27.19	C
ATOM	2322	CB	VAL A 319	37.504	77.716	20.494	1.00	23.15	C
ATOM	2323	CG1	VAL A 319	36.589	76.716	20.065	1.00	24.84	C
ATOM	2324	CG2	VAL A 319	37.970	77.405	21.947	1.00	22.09	C
ATOM	2325	C	VAL A 319	38.276	77.837	18.287	1.00	26.97	C
ATOM	2326	O	VAL A 319	38.395	76.882	17.479	1.00	28.31	O
ATOM	2327	N	THR A 320	38.006	79.015	17.874	1.00	26.89	N
ATOM	2328	CA	THR A 320	37.616	79.273	16.476	1.00	28.65	C
ATOM	2329	CB	THR A 320	37.261	80.646	16.484	1.00	27.89	C
ATOM	2330	OG1	THR A 320	36.174	80.811	17.491	1.00	39.20	O
ATOM	2331	CG2	THR A 320	36.804	81.141	15.259	1.00	26.63	C
ATOM	2332	C	THR A 320	38.751	78.927	15.450	1.00	33.00	C
ATOM	2333	O	THR A 320	38.663	78.190	14.441	1.00	32.33	O
ATOM	2334	N	ALA A 321	39.922	79.429	15.763	1.00	35.30	N
ATOM	2335	CA	ALA A 321	41.139	79.122	14.950	1.00	30.68	C
ATOM	2336	CB	ALA A 321	42.173	79.664	15.541	1.00	26.62	C
ATOM	2337	C	ALA A 321	41.315	77.630	14.903	1.00	30.40	C
ATOM	2338	O	ALA A 321	41.415	76.995	13.794	1.00	33.20	O
ATOM	2339	N	LYS A 322	41.235	76.947	16.039	1.00	30.73	N
ATOM	2340	CA	LYS A 322	41.350	75.509	15.808	1.00	30.79	C
ATOM	2341	CB	LYS A 322	41.402	74.769	16.981	1.00	30.41	C
ATOM	2342	CG	LYS A 322	42.693	74.967	17.888	1.00	39.50	C
ATOM	2343	CD	LYS A 322	42.706	73.748	18.960	1.00	48.57	C
ATOM	2344	CE	LYS A 322	43.556	73.939	20.200	1.00	44.82	C
ATOM	2345	NZ	LYS A 322	43.418	72.408	21.149	1.00	50.22	N
ATOM	2346	C	LYS A 322	40.232	74.960	14.935	1.00	30.86	C
ATOM	2347	O	LYS A 322	40.530	74.115	14.156	1.00	28.88	O
ATOM	2348	N	VAL A 323	38.965	75.516	15.036	1.00	31.80	N
ATOM	2349	CA	VAL A 323	37.902	74.982	14.164	1.00	29.38	C
ATOM	2350	CB	VAL A 323	36.542	75.452	14.498	1.00	29.06	C
ATOM	2351	CG1	VAL A 323	35.524	74.865	13.571	1.00	27.01	C
ATOM	2352	CG2	VAL A 323	36.121	74.866	15.738	1.00	29.52	C
ATOM	2353	C	VAL A 323	38.317	75.226	12.718	1.00	27.09	C
ATOM	2354	O	VAL A 323	38.272	74.337	11.872	1.00	26.65	O

Figure 2

ATOM	2355	N	GLN A 324	38.717	76.429	12.435	1.00	26.85	N
ATOM	2356	CA	GLN A 324	39.082	76.732	11.068	1.00	27.04	C
ATOM	2357	CB	GLN A 324	39.333	78.173	10.824	1.00	25.31	C
ATOM	2358	CG	GLN A 324	38.055	78.930	10.960	1.00	27.18	C
ATOM	2359	CD	GLN A 324	38.167	80.428	11.153	1.00	32.06	C
ATOM	2360	OE1	GLN A 324	37.408	81.188	10.511	1.00	32.58	O
ATOM	2361	NE2	GLN A 324	39.028	80.865	12.006	1.00	30.60	N
ATOM	2362	C	GLN A 324	40.136	75.807	10.604	1.00	32.56	C
ATOM	2363	O	GLN A 324	40.131	75.465	9.427	1.00	33.46	O
ATOM	2364	N	GLU A 325	41.071	75.324	11.485	1.00	36.07	N
ATOM	2365	CA	GLU A 325	42.090	74.445	10.898	1.00	36.20	C
ATOM	2366	CB	GLU A 325	43.195	74.087	11.758	1.00	41.99	C
ATOM	2367	CG	GLU A 325	44.154	75.130	12.317	1.00	50.36	C
ATOM	2368	CD	GLU A 325	44.640	74.778	14.022	1.00	57.78	C
ATOM	2369	OE1	GLU A 325	45.237	75.683	14.780	1.00	60.35	O
ATOM	2370	OE2	GLU A 325	44.461	73.696	14.766	1.00	58.91	O
ATOM	2371	C	GLU A 325	41.475	73.111	10.532	1.00	35.51	C
ATOM	2372	O	GLU A 325	41.834	72.497	9.499	1.00	35.53	O
ATOM	2373	N	GLU A 326	40.566	72.560	11.332	1.00	35.10	N
ATOM	2374	CA	GLU A 326	39.995	71.314	10.804	1.00	33.14	C
ATOM	2375	CB	GLU A 326	38.972	70.772	11.702	1.00	31.97	C
ATOM	2376	CG	GLU A 326	39.551	69.694	12.555	1.00	40.62	C
ATOM	2377	CD	GLU A 326	38.540	69.090	13.689	1.00	48.43	C
ATOM	2378	OE1	GLU A 326	38.669	67.936	14.163	1.00	47.83	O
ATOM	2379	OE2	GLU A 326	37.547	69.752	14.147	1.00	52.29	O
ATOM	2380	C	GLU A 326	39.280	71.493	9.542	1.00	29.70	C
ATOM	2381	O	GLU A 326	39.231	70.662	8.657	1.00	30.45	O
ATOM	2382	N	ILE A 327	38.737	72.629	9.329	1.00	32.50	N
ATOM	2383	CA	ILE A 327	37.992	72.807	8.107	1.00	33.03	C
ATOM	2384	CB	ILE A 327	37.161	74.199	8.255	1.00	32.84	C
ATOM	2385	CG1	ILE A 327	35.902	74.033	9.061	1.00	32.61	C
ATOM	2386	CD1	ILE A 327	35.247	75.311	9.710	1.00	29.97	C
ATOM	2387	CG2	ILE A 327	36.702	74.614	7.106	1.00	33.05	C
ATOM	2388	C	ILE A 327	38.927	72.985	6.902	1.00	33.29	C
ATOM	2389	O	ILE A 327	38.646	72.351	5.839	1.00	33.57	O
ATOM	2390	N	GLU A 328	40.012	73.754	7.029	1.00	28.53	N
ATOM	2391	CA	GLU A 328	40.856	73.821	5.865	1.00	31.92	C
ATOM	2392	CB	GLU A 328	42.089	74.520	6.012	1.00	35.24	C
ATOM	2393	CG	GLU A 328	41.940	75.898	6.656	1.00	49.42	C
ATOM	2394	CD	GLU A 328	42.021	77.079	5.652	1.00	62.15	C
ATOM	2395	OE1	GLU A 328	42.014	78.271	6.263	1.00	60.83	O
ATOM	2396	OE2	GLU A 328	42.069	76.795	4.371	1.00	59.19	O
ATOM	2397	C	GLU A 328	41.318	72.518	5.578	1.00	30.79	C
ATOM	2398	O	GLU A 328	41.393	72.203	4.580	1.00	35.56	O
ATOM	2399	N	ARG A 329	41.667	71.725	6.467	1.00	29.64	N
ATOM	2400	CA	ARG A 329	42.189	70.451	6.205	1.00	29.18	C
ATOM	2401	CB	ARG A 329	42.964	69.941	7.377	1.00	31.85	C
ATOM	2402	CG	ARG A 329	43.327	68.485	7.524	1.00	32.32	C
ATOM	2403	CD	ARG A 329	44.441	68.263	8.564	1.00	36.73	C
ATOM	2404	NE	ARG A 329	43.940	68.553	9.826	1.00	38.50	N
ATOM	2405	CZ	ARG A 329	43.119	67.801	10.324	1.00	41.19	C
ATOM	2406	NH1	ARG A 329	42.557	68.097	11.478	1.00	40.58	N
ATOM	2407	NH2	ARG A 329	42.806	66.761	9.551	1.00	43.37	N
ATOM	2408	C	ARG A 329	41.298	69.417	5.815	1.00	29.34	C
ATOM	2409	O	ARG A 329	41.605	68.726	5.038	1.00	32.16	O
ATOM	2410	N	VAL A 330	40.103	69.336	6.338	1.00	30.75	N
ATOM	2411	CA	VAL A 330	39.141	68.317	5.879	1.00	27.99	C
ATOM	2412	CB	VAL A 330	38.291	68.030	7.021	1.00	24.53	C
ATOM	2413	CG1	VAL A 330	37.429	66.941	6.749	1.00	26.23	C
ATOM	2414	CG2	VAL A 330	39.193	67.588	8.194	1.00	26.56	C
ATOM	2415	C	VAL A 330	38.299	68.671	4.709	1.00	30.84	C
ATOM	2416	O	VAL A 330	38.021	67.856	3.957	1.00	32.47	O
ATOM	2417	N	ILE A 331	37.927	69.910	4.511	1.00	32.09	N
ATOM	2418	CA	ILE A 331	37.089	70.307	3.412	1.00	38.42	C
ATOM	2419	CB	ILE A 331	35.813	70.969	4.307	1.00	39.04	C
ATOM	2420	CG1	ILE A 331	35.211	69.892	5.133	1.00	36.70	C
ATOM	2421	CD1	ILE A 331	34.164	70.327	6.204	1.00	36.50	C
ATOM	2422	CG2	ILE A 331	34.862	71.582	3.299	1.00	49.28	C
ATOM	2423	C	ILE A 331	37.870	71.422	2.764	1.00	38.33	C
ATOM	2424	O	ILE A 331	38.320	72.183	3.477	1.00	44.91	O
ATOM	2425	N	GLY A 332	38.227	71.746	1.724	1.00	40.68	N
ATOM	2426	CA	GLY A 332	39.001	72.924	1.663	1.00	44.91	C
ATOM	2427	C	GLY A 332	38.161	74.160	1.700	1.00	49.04	C
ATOM	2428	O	GLY A 332	37.344	74.307	2.577	1.00	45.26	O
ATOM	2429	N	ARG A 333	38.440	75.039	0.741	1.00	53.16	N
ATOM	2430	CA	ARG A 333	37.788	76.248	0.664	1.00	55.09	C

Figure 2

ATOM	2431	CB	ARG	A	333	38.784	77.406	0.581	1.00	57.66
ATOM	2432	CG	ARG	A	333	38.327	78.503	1.669	1.00	66.01
ATOM	2433	CD	ARG	A	333	39.334	79.753	1.547	1.00	76.13
ATOM	2434	NE	ARG	A	333	40.017	80.231	2.803	1.00	80.58
ATOM	2435	CZ	ARG	A	333	41.312	80.019	3.213	1.00	83.62
ATOM	2436	NH1	ARG	A	333	42.252	79.267	2.541	1.00	83.79
ATOM	2437	NH2	ARG	A	333	41.656	80.599	4.366	1.00	86.26
ATOM	2438	C	ARG	A	333	36.808	76.117	-0.474	1.00	55.45
ATOM	2439	O	ARG	A	333	35.989	76.932	-0.669	1.00	60.59
ATOM	2440	N	ASN	A	334	36.778	75.068	-1.187	1.00	53.78
ATOM	2441	CA	ASN	A	334	35.938	75.022	-2.368	1.00	53.83
ATOM	2442	CB	ASN	A	334	36.644	74.187	-3.485	1.00	53.11
ATOM	2443	CG	ASN	A	334	37.953	74.846	-3.933	1.00	52.95
ATOM	2444	OD1	ASN	A	334	38.973	74.951	-3.284	1.00	47.13
ATOM	2445	ND2	ASN	A	334	37.900	75.339	-5.145	1.00	69.10
ATOM	2446	C	ASN	A	334	34.619	74.363	-1.914	1.00	52.70
ATOM	2447	O	ASN	A	334	33.754	75.071	-1.476	1.00	59.79
ATOM	2448	N	ARG	A	335	34.465	73.069	-1.932	1.00	47.41
ATOM	2449	CA	ARG	A	335	33.295	72.432	-1.560	1.00	41.41
ATOM	2450	CB	ARG	A	335	33.370	70.924	-1.626	1.00	36.80
ATOM	2451	CG	ARG	A	335	34.049	70.402	-0.638	1.00	44.80
ATOM	2452	CD	ARG	A	335	34.029	68.844	-0.626	1.00	40.28
ATOM	2453	NE	ARG	A	335	33.823	68.337	0.691	1.00	48.35
ATOM	2454	CZ	ARG	A	335	34.766	67.964	1.505	1.00	56.67
ATOM	2455	NH1	ARG	A	335	35.988	68.000	1.088	1.00	64.30
ATOM	2456	NH2	ARG	A	335	34.456	67.555	2.734	1.00	56.56
ATOM	2457	C	ARG	A	335	32.678	72.790	-0.313	1.00	42.19
ATOM	2458	O	ARG	A	335	33.194	73.533	0.637	1.00	42.92
ATOM	2459	N	SER	A	336	31.503	72.261	-0.128	1.00	39.70
ATOM	2460	CA	SER	A	336	30.836	72.867	1.061	1.00	40.11
ATOM	2461	CB	SER	A	336	29.476	73.295	0.705	1.00	43.20
ATOM	2462	OG	SER	A	336	28.851	71.995	0.440	1.00	50.49
ATOM	2463	C	SER	A	336	30.765	71.749	2.024	1.00	37.20
ATOM	2464	O	SER	A	336	31.056	70.490	1.592	1.00	35.49
ATOM	2465	N	PRO	A	337	30.561	71.935	3.321	1.00	28.12
ATOM	2466	CA	PRO	A	337	30.629	70.855	4.240	1.00	21.18
ATOM	2467	CB	PRO	A	337	30.414	71.468	5.415	1.00	19.30
ATOM	2468	CG	PRO	A	337	30.985	72.672	5.235	1.00	25.88
ATOM	2469	CD	PRO	A	337	30.630	73.213	3.872	1.00	26.63
ATOM	2470	C	PRO	A	337	29.555	69.929	4.016	1.00	27.11
ATOM	2471	O	PRO	A	337	28.669	70.297	3.267	1.00	28.43
ATOM	2472	N	CYS	A	338	29.572	68.746	4.592	1.00	28.67
ATOM	2473	CA	CYS	A	338	28.533	67.904	4.605	1.00	31.28
ATOM	2474	CB	CYS	A	338	28.654	67.145	3.317	1.00	36.76
ATOM	2475	SG	CYS	A	338	29.859	65.807	3.277	1.00	44.97
ATOM	2476	C	CYS	A	338	28.693	66.878	5.767	1.00	30.95
ATOM	2477	O	CYS	A	338	29.695	66.785	6.485	1.00	30.63
ATOM	2478	N	MET	A	339	27.749	66.044	5.978	1.00	30.73
ATOM	2479	CA	MET	A	339	27.792	65.269	7.213	1.00	31.41
ATOM	2480	CB	MET	A	339	26.456	64.658	7.522	1.00	30.93
ATOM	2481	CG	MET	A	339	25.418	65.682	7.548	1.00	34.95
ATOM	2482	SD	MET	A	339	25.712	66.839	9.008	1.00	39.80
ATOM	2483	CE	MET	A	339	25.771	65.632	10.165	1.00	40.92
ATOM	2484	C	MET	A	339	28.859	64.367	7.294	1.00	34.83
ATOM	2485	O	MET	A	339	29.501	64.095	8.353	1.00	40.35
ATOM	2486	N	GLN	A	340	29.260	63.856	6.176	1.00	41.03
ATOM	2487	CA	GLN	A	340	30.424	62.864	6.289	1.00	42.49
ATOM	2488	CB	GLN	A	340	30.754	62.265	4.944	1.00	45.27
ATOM	2489	CG	GLN	A	340	30.339	60.897	4.971	1.00	54.24
ATOM	2490	CD	GLN	A	340	30.479	60.425	3.605	1.00	65.40
ATOM	2491	OE1	GLN	A	340	31.509	60.800	2.898	1.00	68.31
ATOM	2492	NE2	GLN	A	340	29.451	59.630	3.136	1.00	73.77
ATOM	2493	C	GLN	A	340	31.687	63.470	6.758	1.00	37.85
ATOM	2494	O	GLN	A	340	32.394	62.740	7.159	1.00	36.49
ATOM	2495	N	ASP	A	341	31.936	64.778	6.682	1.00	32.76
ATOM	2496	CA	ASP	A	341	33.091	65.256	7.346	1.00	30.78
ATOM	2497	CB	ASP	A	341	33.311	66.618	7.000	1.00	31.24
ATOM	2498	CG	ASP	A	341	33.318	66.828	5.532	1.00	35.73
ATOM	2499	OD1	ASP	A	341	33.817	65.956	4.778	1.00	47.14
ATOM	2500	OD2	ASP	A	341	32.788	67.811	5.035	1.00	41.01
ATOM	2501	C	ASP	A	341	33.161	65.333	8.774	1.00	31.29
ATOM	2502	O	ASP	A	341	34.160	65.883	9.390	1.00	29.89
ATOM	2503	N	ARG	A	342	32.124	64.903	9.446	1.00	32.19
ATOM	2504	CA	ARG	A	342	32.228	65.330	10.838	1.00	31.37
ATOM	2505	CB	ARG	A	342	30.851	65.541	11.359	1.00	34.31
ATOM	2506	CG	ARG	A	342	30.810	65.768	12.798	1.00	37.02

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131/514

Figure 2

ATOM	2507	CD	ARG	A	342	29.684	65.793	13.478	1.00	32.09	C
ATOM	2508	NE	ARG	A	342	28.823	64.795	13.153	1.00	35.51	N
ATOM	2509	CZ	ARG	A	342	27.465	64.835	13.497	1.00	44.46	C
ATOM	2510	NH1	ARG	A	342	26.917	65.861	14.212	1.00	45.49	N
ATOM	2511	NH2	ARG	A	342	26.694	63.851	13.114	1.00	44.62	N
ATOM	2512	C	ARG	A	342	33.035	64.324	11.654	1.00	33.83	C
ATOM	2513	O	ARG	A	342	33.684	64.703	12.639	1.00	33.52	O
ATOM	2514	N	SER	A	343	33.026	63.047	11.267	1.00	32.02	N
ATOM	2515	CA	SER	A	343	33.835	62.171	11.931	1.00	31.16	C
ATOM	2516	CB	SER	A	343	33.615	60.773	11.505	1.00	35.28	C
ATOM	2517	OG	SER	A	343	34.158	60.723	10.124	1.00	41.82	O
ATOM	2518	C	SER	A	343	35.243	62.472	11.635	1.00	33.09	C
ATOM	2519	O	SER	A	343	35.999	62.071	12.349	1.00	38.94	O
ATOM	2520	N	HIS	A	344	35.702	63.199	10.730	1.00	32.72	N
ATOM	2521	CA	HIS	A	344	37.105	63.575	10.637	1.00	31.77	C
ATOM	2522	CB	HIS	A	344	37.587	63.552	9.101	1.00	37.61	C
ATOM	2523	CG	HIS	A	344	37.151	62.285	8.359	1.00	42.38	C
ATOM	2524	ND1	HIS	A	344	37.124	61.031	9.000	1.00	54.11	N
ATOM	2525	CE1	HIS	A	344	36.592	60.112	8.171	1.00	47.25	C
ATOM	2526	NE2	HIS	A	344	36.238	60.714	7.037	1.00	43.16	N
ATOM	2527	CD2	HIS	A	344	36.621	62.071	7.123	1.00	45.51	C
ATOM	2528	C	HIS	A	344	37.302	64.909	11.210	1.00	33.12	C
ATOM	2529	O	HIS	A	344	38.366	65.474	11.214	1.00	28.98	O
ATOM	2530	N	MET	A	345	36.288	65.488	11.768	1.00	34.40	N
ATOM	2531	CA	MET	A	345	36.611	66.672	12.500	1.00	33.54	C
ATOM	2532	CB	MET	A	345	35.757	67.788	11.763	1.00	35.68	C
ATOM	2533	CG	MET	A	345	36.221	68.171	10.453	1.00	36.51	C
ATOM	2534	SD	MET	A	345	34.999	68.713	9.627	1.00	32.60	S
ATOM	2535	CE	MET	A	345	35.394	70.345	9.812	1.00	31.51	C
ATOM	2536	C	MET	A	345	36.210	66.744	14.076	1.00	35.58	C
ATOM	2537	O	MET	A	345	35.258	67.513	14.496	1.00	32.08	O
ATOM	2538	N	PRO	A	346	36.938	66.029	14.932	1.00	33.84	N
ATOM	2539	CA	PRO	A	346	36.735	65.807	16.323	1.00	30.10	C
ATOM	2540	CB	PRO	A	346	37.955	65.110	16.650	1.00	31.65	C
ATOM	2541	CG	PRO	A	346	38.414	64.691	15.494	1.00	32.56	C
ATOM	2542	CD	PRO	A	346	38.225	65.546	14.517	1.00	33.80	C
ATOM	2543	C	PRO	A	346	36.672	67.036	16.987	1.00	29.99	C
ATOM	2544	O	PRO	A	346	35.835	67.271	17.772	1.00	34.98	O
ATOM	2545	N	TYR	A	347	37.551	67.961	16.716	1.00	25.52	N
ATOM	2546	CA	TYR	A	347	37.528	69.226	17.475	1.00	24.96	C
ATOM	2547	CB	TYR	A	347	38.716	70.128	17.143	1.00	21.55	C
ATOM	2548	CG	TYR	A	347	38.932	71.267	18.136	1.00	23.95	C
ATOM	2549	CD1	TYR	A	347	39.535	71.108	19.401	1.00	27.58	C
ATOM	2550	CE1	TYR	A	347	39.692	72.125	20.121	1.00	30.73	C
ATOM	2551	CZ	TYR	A	347	39.261	73.363	19.769	1.00	30.03	C
ATOM	2552	OH	TYR	A	347	39.311	74.484	20.646	1.00	30.35	O
ATOM	2553	CE2	TYR	A	347	38.682	73.494	18.663	1.00	29.41	C
ATOM	2554	CD2	TYR	A	347	38.529	72.465	17.899	1.00	27.78	C
ATOM	2555	C	TYR	A	347	36.192	69.972	17.272	1.00	26.12	C
ATOM	2556	O	TYR	A	347	35.580	70.355	18.207	1.00	31.51	O
ATOM	2557	N	THR	A	348	35.715	70.153	16.064	1.00	26.11	N
ATOM	2558	CA	THR	A	348	34.469	70.790	15.771	1.00	24.64	C
ATOM	2559	CB	THR	A	348	34.333	70.860	14.255	1.00	24.60	C
ATOM	2560	OG1	THR	A	348	35.489	71.640	13.724	1.00	26.33	O
ATOM	2561	CG2	THR	A	348	33.218	71.706	13.894	1.00	23.66	C
ATOM	2562	C	THR	A	348	33.268	70.084	16.343	1.00	25.46	C
ATOM	2563	O	THR	A	348	32.321	70.676	16.867	1.00	26.10	O
ATOM	2564	N	ASP	A	349	33.329	68.770	16.336	1.00	26.94	N
ATOM	2565	CA	ASP	A	349	32.267	68.045	16.870	1.00	27.16	C
ATOM	2566	CB	ASP	A	349	32.472	66.666	16.652	1.00	24.43	C
ATOM	2567	CG	ASP	A	349	31.229	65.847	16.632	1.00	31.15	C
ATOM	2568	OD1	ASP	A	349	30.075	66.290	16.987	1.00	40.81	O
ATOM	2569	OD2	ASP	A	349	31.273	64.612	16.296	1.00	34.49	O
ATOM	2570	C	ASP	A	349	32.217	68.409	18.359	1.00	28.13	C
ATOM	2571	O	ASP	A	349	31.244	68.323	19.072	1.00	26.54	O
ATOM	2572	N	ALA	A	350	33.361	68.701	18.911	1.00	31.77	N
ATOM	2573	CA	ALA	A	350	33.398	68.929	20.367	1.00	26.72	C
ATOM	2574	CB	ALA	A	350	34.774	68.734	20.812	1.00	28.60	C
ATOM	2575	C	ALA	A	350	33.012	70.325	20.646	1.00	26.38	C
ATOM	2576	O	ALA	A	350	32.334	70.487	21.685	1.00	29.40	O
ATOM	2577	N	VAL	A	351	33.430	71.333	19.900	1.00	20.04	N
ATOM	2578	CA	VAL	A	351	32.906	72.697	20.101	1.00	16.24	C
ATOM	2579	CB	VAL	A	351	33.450	73.435	19.074	1.00	19.48	C
ATOM	2580	CG1	VAL	A	351	32.705	74.718	19.078	1.00	20.46	C
ATOM	2581	CG2	VAL	A	351	34.885	73.910	19.214	1.00	25.28	C
ATOM	2582	C	VAL	A	351	31.335	72.574	19.971	1.00	20.17	C

Figure 2

ATOM	2583	O	VAL	A	351	30.607	73.170	20.754	1.00	18.81	O
ATOM	2584	N	VAL	A	352	30.725	71.857	18.894	1.00	19.06	N
ATOM	2585	CA	VAL	A	352	29.304	71.841	18.794	1.00	15.87	C
ATOM	2586	CB	VAL	A	352	28.878	71.183	17.550	1.00	15.99	C
ATOM	2587	CG1	VAL	A	352	27.413	70.907	17.564	1.00	24.05	C
ATOM	2588	CG2	VAL	A	352	29.098	72.057	16.443	1.00	23.35	C
ATOM	2589	C	VAL	A	352	28.723	71.272	20.128	1.00	16.12	C
ATOM	2590	O	VAL	A	352	27.900	71.877	20.893	1.00	18.46	O
ATOM	2591	N	HIS	A	353	29.075	70.095	20.494	1.00	17.64	N
ATOM	2592	CA	HIS	A	353	28.641	69.471	21.720	1.00	15.92	C
ATOM	2593	CB	HIS	A	353	29.393	68.188	21.907	1.00	13.07	C
ATOM	2594	CG	HIS	A	353	28.866	67.087	21.105	1.00	12.29	C
ATOM	2595	ND1	HIS	A	353	28.156	66.009	21.611	1.00	10.05	N
ATOM	2596	CE1	HIS	A	353	27.928	65.128	20.646	1.00	11.93	C
ATOM	2597	NE2	HIS	A	353	28.439	65.596	19.519	1.00	15.51	N
ATOM	2598	CD2	HIS	A	353	29.018	66.862	19.824	1.00	17.05	C
ATOM	2599	C	HIS	A	353	28.805	70.447	22.944	1.00	20.76	C
ATOM	2600	O	HIS	A	353	27.905	70.570	23.675	1.00	19.28	O
ATOM	2601	N	GLU	A	354	29.992	71.105	23.077	1.00	23.66	N
ATOM	2602	CA	GLU	A	354	30.222	71.876	24.236	1.00	26.84	C
ATOM	2603	CB	GLU	A	354	31.647	72.262	24.499	1.00	26.12	C
ATOM	2604	CG	GLU	A	354	31.989	73.106	25.692	1.00	21.95	C
ATOM	2605	CD	GLU	A	354	31.798	72.532	27.028	1.00	25.97	C
ATOM	2606	OE1	GLU	A	354	31.295	71.482	27.148	1.00	28.50	O
ATOM	2607	OE2	GLU	A	354	32.242	73.161	28.087	1.00	27.97	O
ATOM	2608	C	GLU	A	354	29.347	73.106	24.155	1.00	29.81	C
ATOM	2609	O	GLU	A	354	28.909	73.514	25.254	1.00	36.02	O
ATOM	2610	N	VAL	A	355	29.044	73.697	23.071	1.00	26.43	N
ATOM	2611	CA	VAL	A	355	28.144	74.795	23.192	1.00	21.52	C
ATOM	2612	CB	VAL	A	355	27.927	75.310	21.747	1.00	26.12	C
ATOM	2613	CG1	VAL	A	355	26.520	76.081	21.879	1.00	34.55	C
ATOM	2614	CG2	VAL	A	355	29.017	76.226	21.485	1.00	28.27	C
ATOM	2615	C	VAL	A	355	26.797	74.061	23.681	1.00	23.34	C
ATOM	2616	O	VAL	A	355	26.190	74.480	24.592	1.00	22.97	O
ATOM	2617	N	GLN	A	356	26.206	73.010	23.099	1.00	20.57	N
ATOM	2618	CA	GLN	A	356	25.002	72.622	23.659	1.00	15.86	C
ATOM	2619	CB	GLN	A	356	24.414	71.425	22.945	1.00	18.19	C
ATOM	2620	CG	GLN	A	356	23.940	71.735	21.518	1.00	19.12	C
ATOM	2621	CD	GLN	A	356	23.316	70.533	20.847	1.00	30.38	C
ATOM	2622	OE1	GLN	A	356	23.982	69.614	20.307	1.00	30.97	O
ATOM	2623	NE2	GLN	A	356	22.015	70.409	21.015	1.00	33.77	N
ATOM	2624	C	GLN	A	356	25.053	72.392	25.094	1.00	20.26	C
ATOM	2625	O	GLN	A	356	24.229	72.712	25.855	1.00	25.55	O
ATOM	2626	N	ARG	A	357	25.971	71.709	25.695	1.00	28.31	N
ATOM	2627	CA	ARG	A	357	25.997	71.298	27.209	1.00	22.14	C
ATOM	2628	CB	ARG	A	357	27.374	70.707	27.546	1.00	23.81	C
ATOM	2629	CG	ARG	A	357	27.569	69.979	28.922	1.00	24.46	C
ATOM	2630	CD	ARG	A	357	28.885	69.806	29.313	1.00	19.05	C
ATOM	2631	NE	ARG	A	357	29.650	71.037	29.220	1.00	14.95	N
ATOM	2632	CZ	ARG	A	357	29.671	71.838	30.198	1.00	23.28	C
ATOM	2633	NH1	ARG	A	357	30.386	73.013	30.188	1.00	29.57	N
ATOM	2634	NH2	ARG	A	357	28.921	71.573	31.264	1.00	24.11	N
ATOM	2635	C	ARG	A	357	26.106	72.602	28.001	1.00	28.14	C
ATOM	2636	O	ARG	A	357	25.537	72.788	29.046	1.00	26.96	O
ATOM	2637	N	TYR	A	358	27.070	73.399	27.645	1.00	28.64	N
ATOM	2638	CA	TYR	A	358	27.288	74.636	28.414	1.00	30.15	C
ATOM	2639	CB	TYR	A	358	28.343	75.559	27.771	1.00	28.31	C
ATOM	2640	CG	TYR	A	358	28.634	76.900	28.399	1.00	30.60	C
ATOM	2641	CD1	TYR	A	358	28.136	78.006	27.884	1.00	36.27	C
ATOM	2642	CE1	TYR	A	358	28.318	79.246	28.313	1.00	27.20	C
ATOM	2643	CZ	TYR	A	358	29.014	79.472	29.315	1.00	30.17	C
ATOM	2644	OH	TYR	A	358	29.187	80.874	29.754	1.00	37.35	O
ATOM	2645	CE2	TYR	A	358	29.590	78.437	29.928	1.00	29.39	C
ATOM	2646	CD2	TYR	A	358	29.414	77.113	29.442	1.00	31.97	C
ATOM	2647	C	TYR	A	358	26.025	75.532	28.537	1.00	31.22	C
ATOM	2648	O	TYR	A	358	25.754	75.883	29.654	1.00	30.15	O
ATOM	2649	N	ILE	A	359	25.397	75.930	27.436	1.00	29.03	N
ATOM	2650	CA	ILE	A	359	24.296	76.916	27.408	1.00	25.35	C
ATOM	2651	CB	ILE	A	359	23.959	77.385	26.074	1.00	19.39	C
ATOM	2652	CG1	ILE	A	359	23.480	76.347	25.199	1.00	15.84	C
ATOM	2653	CD1	ILE	A	359	23.073	76.986	23.747	1.00	19.40	C
ATOM	2654	CG2	ILE	A	359	25.073	77.911	25.438	1.00	28.40	C
ATOM	2655	C	ILE	A	359	22.960	76.335	28.022	1.00	28.82	C
ATOM	2656	O	ILE	A	359	22.040	77.122	28.239	1.00	32.05	O
ATOM	2657	N	ASP	A	360	22.863	75.050	28.227	1.00	26.17	N
ATOM	2658	CA	ASP	A	360	21.641	74.426	28.775	1.00	29.48	C

133/514

Figure 2

ATOM	2659	CB	ASP	A	360	21.867	74.341	30.366	1.00	31.44	C
ATOM	2660	CG	ASP	A	360	20.792	73.568	31.105	1.00	35.25	C
ATOM	2661	OD1	ASP	A	360	20.660	73.788	32.365	1.00	41.05	O
ATOM	2662	OD2	ASP	A	360	19.938	72.842	30.349	1.00	50.73	O
ATOM	2663	C	ASP	A	360	20.372	75.068	28.496	1.00	27.30	C
ATOM	2664	O	ASP	A	360	19.819	75.558	29.250	1.00	34.26	O
ATOM	2665	N	LEU	A	361	19.897	75.190	27.379	1.00	33.01	N
ATOM	2666	CA	LEU	A	361	18.656	76.048	26.991	1.00	30.32	C
ATOM	2667	CB	LEU	A	361	18.645	76.103	25.378	1.00	27.82	C
ATOM	2668	CG	LEU	A	361	19.256	77.235	24.696	1.00	30.29	C
ATOM	2669	CD1	LEU	A	361	20.380	77.790	25.222	1.00	35.81	C
ATOM	2670	CD2	LEU	A	361	19.427	76.898	23.318	1.00	40.70	C
ATOM	2671	C	LEU	A	361	17.244	75.441	27.543	1.00	30.91	C
ATOM	2672	O	LEU	A	361	16.372	76.124	27.716	1.00	31.70	O
ATOM	2673	N	LEU	A	362	17.053	74.147	27.842	1.00	28.20	N
ATOM	2674	CA	LEU	A	362	15.922	73.666	28.375	1.00	23.63	C
ATOM	2675	CB	LEU	A	362	15.349	72.664	27.475	1.00	20.10	C
ATOM	2676	CG	LEU	A	362	15.237	73.487	26.241	1.00	28.70	C
ATOM	2677	CD1	LEU	A	362	14.800	72.433	25.249	1.00	40.60	C
ATOM	2678	CD2	LEU	A	362	14.065	74.494	26.230	1.00	30.55	C
ATOM	2679	C	LEU	A	362	16.284	73.052	29.730	1.00	24.05	C
ATOM	2680	O	LEU	A	362	16.260	71.857	29.911	1.00	31.14	O
ATOM	2681	N	PRO	A	363	16.546	73.814	30.706	1.00	25.12	N
ATOM	2682	CA	PRO	A	363	17.034	73.333	32.034	1.00	25.72	C
ATOM	2683	CB	PRO	A	363	17.084	74.637	32.781	1.00	28.26	C
ATOM	2684	CG	PRO	A	363	17.254	75.644	31.789	1.00	22.00	C
ATOM	2685	CD	PRO	A	363	16.562	75.289	30.690	1.00	25.48	C
ATOM	2686	C	PRO	A	363	16.261	72.248	32.655	1.00	26.16	C
ATOM	2687	O	PRO	A	363	16.949	71.491	33.366	1.00	32.89	O
ATOM	2688	N	THR	A	364	14.974	72.076	32.364	1.00	27.38	N
ATOM	2689	CA	THR	A	364	13.888	71.093	32.739	1.00	24.83	C
ATOM	2690	CB	THR	A	364	12.981	71.876	33.639	1.00	29.37	C
ATOM	2691	OG1	THR	A	364	12.041	72.783	33.103	1.00	27.78	O
ATOM	2692	CG2	THR	A	364	13.726	72.631	34.624	1.00	24.29	C
ATOM	2693	C	THR	A	364	13.397	70.995	31.438	1.00	31.42	C
ATOM	2694	O	THR	A	364	13.192	72.068	30.705	1.00	41.38	O
ATOM	2695	N	SER	A	365	13.378	69.850	30.777	1.00	35.24	N
ATOM	2696	CA	SER	A	365	13.157	69.915	29.409	1.00	30.54	C
ATOM	2697	CB	SER	A	365	13.372	68.643	28.737	1.00	31.89	C
ATOM	2698	OG	SER	A	365	12.771	67.704	29.170	1.00	30.50	O
ATOM	2699	C	SER	A	365	11.768	70.448	29.149	1.00	30.31	C
ATOM	2700	O	SER	A	365	11.590	71.530	29.396	1.00	28.48	O
ATOM	2701	N	LEU	A	366	10.852	69.688	28.626	1.00	31.50	N
ATOM	2702	CA	LEU	A	366	9.445	70.049	28.606	1.00	30.60	C
ATOM	2703	CB	LEU	A	366	8.762	69.573	27.345	1.00	31.40	C
ATOM	2704	CG	LEU	A	366	8.593	70.810	26.474	1.00	29.87	C
ATOM	2705	CD1	LEU	A	366	9.711	71.550	26.348	1.00	32.76	C
ATOM	2706	CD2	LEU	A	366	8.190	70.380	25.104	1.00	36.17	C
ATOM	2707	C	LEU	A	366	9.031	69.211	29.694	1.00	30.92	C
ATOM	2708	O	LEU	A	366	9.665	68.184	29.834	1.00	32.15	O
ATOM	2709	N	PRO	A	367	7.922	69.475	30.390	1.00	29.15	N
ATOM	2710	CA	PRO	A	367	7.473	68.722	31.496	1.00	29.28	C
ATOM	2711	CB	PRO	A	367	6.375	69.498	32.004	1.00	31.11	C
ATOM	2712	CG	PRO	A	367	6.398	70.718	31.451	1.00	33.82	C
ATOM	2713	CD	PRO	A	367	6.986	70.455	30.126	1.00	30.92	C
ATOM	2714	C	PRO	A	367	6.892	67.478	31.129	1.00	29.30	C
ATOM	2715	O	PRO	A	367	6.323	67.419	30.186	1.00	29.58	O
ATOM	2716	N	HIS	A	368	7.072	66.499	31.966	1.00	32.00	N
ATOM	2717	CA	HIS	A	368	6.596	65.209	31.769	1.00	36.07	C
ATOM	2718	CB	HIS	A	368	7.809	64.271	32.052	1.00	35.82	C
ATOM	2719	CG	HIS	A	368	8.764	64.047	30.905	1.00	30.59	C
ATOM	2720	ND1	HIS	A	368	9.112	62.799	30.492	1.00	30.27	N
ATOM	2721	CE1	HIS	A	368	9.985	62.966	29.501	1.00	44.81	C
ATOM	2722	NE2	HIS	A	368	10.188	64.254	29.275	1.00	32.27	N
ATOM	2723	CD2	HIS	A	368	9.490	64.928	30.193	1.00	30.85	C
ATOM	2724	C	HIS	A	368	5.578	64.866	32.799	1.00	38.59	C
ATOM	2725	O	HIS	A	368	5.320	65.545	33.773	1.00	39.10	O
ATOM	2726	N	ALA	A	369	5.016	63.694	32.631	1.00	43.14	N
ATOM	2727	CA	ALA	A	369	4.041	63.264	33.675	1.00	44.94	C
ATOM	2728	CB	ALA	A	369	2.766	63.884	33.324	1.00	48.43	C
ATOM	2729	C	ALA	A	369	3.901	61.798	33.672	1.00	40.83	C
ATOM	2730	O	ALA	A	369	3.982	61.308	32.637	1.00	38.43	O
ATOM	2731	N	VAL	A	370	3.786	61.159	34.833	1.00	43.57	N
ATOM	2732	CA	VAL	A	370	3.718	59.636	34.855	1.00	46.49	C
ATOM	2733	CB	VAL	A	370	3.887	59.088	36.128	1.00	46.19	C
ATOM	2734	CG1	VAL	A	370	5.262	59.389	36.647	1.00	48.32	C

134/514

Figure 2

ATOM	2735	CG2	VAL	A	370	2.961	59.784	37.049	1.00	52.50	C
ATOM	2736	C	VAL	A	370	2.475	59.072	34.259	1.00	47.52	C
ATOM	2737	O	VAL	A	370	1.378	59.549	34.338	1.00	49.10	O
ATOM	2738	N	THR	A	371	2.684	58.066	33.558	1.00	50.90	N
ATOM	2739	CA	THR	A	371	1.691	57.445	32.758	1.00	57.29	C
ATOM	2740	CB	THR	A	371	2.402	56.837	31.633	1.00	58.71	C
ATOM	2741	OG1	THR	A	371	1.620	56.679	30.533	1.00	65.42	O
ATOM	2742	CG2	THR	A	371	3.010	55.476	31.895	1.00	61.14	C
ATOM	2743	C	THR	A	371	0.849	56.383	33.420	1.00	61.70	C
ATOM	2744	O	THR	A	371	0.001	55.771	32.787	1.00	62.14	O
ATOM	2745	N	CYS	A	372	1.159	56.092	34.691	1.00	65.29	N
ATOM	2746	CA	CYS	A	372	0.346	55.240	35.556	1.00	66.28	C
ATOM	2747	CB	CYS	A	372	0.554	53.782	35.187	1.00	68.07	C
ATOM	2748	SG	CYS	A	372	2.239	53.360	35.423	1.00	72.57	S
ATOM	2749	C	CYS	A	372	0.859	55.376	36.978	1.00	66.26	C
ATOM	2750	O	CYS	A	372	1.978	55.884	37.246	1.00	64.25	O
ATOM	2751	N	ASP	A	373	0.104	54.849	37.927	1.00	66.29	N
ATOM	2752	CA	ASP	A	373	0.552	54.998	39.314	1.00	67.93	C
ATOM	2753	CB	ASP	A	373	-0.418	54.407	40.247	1.00	68.26	C
ATOM	2754	CG	ASP	A	373	-1.583	55.347	40.545	1.00	73.80	C
ATOM	2755	OD1	ASP	A	373	-2.743	55.060	40.080	1.00	81.15	O
ATOM	2756	OD2	ASP	A	373	-1.429	56.400	41.199	1.00	76.26	O
ATOM	2757	C	ASP	A	373	1.901	54.269	39.375	1.00	67.65	C
ATOM	2758	O	ASP	A	373	1.967	53.176	38.827	1.00	68.16	O
ATOM	2759	N	ILE	A	374	2.958	54.893	39.930	1.00	65.47	N
ATOM	2760	CA	ILE	A	374	4.214	54.215	39.976	1.00	65.77	C
ATOM	2761	CB	ILE	A	374	5.117	54.705	38.767	1.00	67.78	C
ATOM	2762	CG1	ILE	A	374	6.014	53.610	38.260	1.00	67.43	C
ATOM	2763	CD1	ILE	A	374	5.854	52.156	39.081	1.00	78.28	C
ATOM	2764	CG2	ILE	A	374	5.989	56.000	39.130	1.00	66.78	C
ATOM	2765	C	ILE	A	374	4.930	54.410	41.301	1.00	65.40	C
ATOM	2766	O	ILE	A	374	4.703	55.375	41.966	1.00	65.64	O
ATOM	2767	N	LYS	A	375	5.756	53.467	41.703	1.00	64.77	N
ATOM	2768	CA	LYS	A	375	6.573	53.634	42.904	1.00	64.82	C
ATOM	2769	CB	LYS	A	375	6.597	52.330	43.659	1.00	67.67	C
ATOM	2770	CG	LYS	A	375	7.606	52.282	44.786	1.00	68.98	C
ATOM	2771	CD	LYS	A	375	6.918	51.807	46.191	1.00	82.43	C
ATOM	2772	CE	LYS	A	375	7.104	50.263	46.608	1.00	83.85	C
ATOM	2773	NZ	LYS	A	375	6.509	49.247	45.624	1.00	85.46	N
ATOM	2774	C	LYS	A	375	7.942	53.821	42.470	1.00	63.36	C
ATOM	2775	O	LYS	A	375	8.511	52.943	41.838	1.00	63.43	O
ATOM	2776	N	PHE	A	376	8.504	54.971	42.711	1.00	60.72	N
ATOM	2777	CA	PHE	A	376	9.776	55.223	42.117	1.00	58.02	C
ATOM	2778	CB	PHE	A	376	9.726	56.479	41.244	1.00	57.50	C
ATOM	2779	CG	PHE	A	376	11.007	56.872	40.711	1.00	55.10	C
ATOM	2780	CD1	PHE	A	376	11.491	56.251	39.621	1.00	57.09	C
ATOM	2781	CE1	PHE	A	376	12.692	56.596	39.123	1.00	56.61	C
ATOM	2782	CZ	PHE	A	376	13.412	57.582	39.723	1.00	56.77	C
ATOM	2783	CE2	PHE	A	376	12.976	58.156	40.776	1.00	52.28	C
ATOM	2784	CD2	PHE	A	376	11.760	57.832	41.283	1.00	51.53	C
ATOM	2785	C	PHE	A	376	10.637	55.479	43.221	1.00	58.04	C
ATOM	2786	O	PHE	A	376	10.351	56.311	43.926	1.00	56.23	O
ATOM	2787	N	ARG	A	377	11.762	54.772	43.335	1.00	60.07	N
ATOM	2788	CA	ARG	A	377	12.754	54.887	44.451	1.00	60.57	C
ATOM	2789	CB	ARG	A	377	13.611	56.171	44.427	1.00	59.72	C
ATOM	2790	CG	ARG	A	377	14.346	56.429	43.156	1.00	65.58	C
ATOM	2791	CD	ARG	A	377	15.804	55.961	43.082	1.00	61.76	C
ATOM	2792	NE	ARG	A	377	16.706	57.073	43.333	1.00	59.55	N
ATOM	2793	CZ	ARG	A	377	17.676	57.398	42.515	1.00	50.42	C
ATOM	2794	NH1	ARG	A	377	17.950	56.717	41.485	1.00	56.99	N
ATOM	2795	NH2	ARG	A	377	18.414	58.394	42.781	1.00	55.93	N
ATOM	2796	C	ARG	A	377	11.992	54.763	45.837	1.00	62.56	C
ATOM	2797	O	ARG	A	377	12.294	55.527	46.890	1.00	58.78	O
ATOM	2798	N	ASN	A	378	11.005	53.843	45.793	1.00	61.29	N
ATOM	2799	CA	ASN	A	378	10.201	53.666	46.895	1.00	62.58	C
ATOM	2800	CB	ASN	A	378	11.133	53.255	47.980	1.00	64.37	C
ATOM	2801	CG	ASN	A	378	10.449	52.598	49.103	1.00	71.59	C
ATOM	2802	OD1	ASN	A	378	10.747	52.919	50.339	1.00	78.21	O
ATOM	2803	ND2	ASN	A	378	9.461	51.701	48.775	1.00	81.33	N
ATOM	2804	C	ASN	A	378	9.478	54.974	47.249	1.00	62.51	C
ATOM	2805	O	ASN	A	378	9.515	55.316	48.407	1.00	62.57	O
ATOM	2806	N	TYR	A	379	8.807	55.699	46.301	1.00	61.68	N
ATOM	2807	CA	TYR	A	379	8.059	56.907	46.623	1.00	62.41	C
ATOM	2808	CB	TYR	A	379	8.660	58.227	46.201	1.00	61.59	C
ATOM	2809	CG	TYR	A	379	9.735	58.685	47.094	1.00	60.19	C
ATOM	2810	CD1	TYR	A	379	11.110	58.794	46.644	1.00	61.33	C

135/514

Figure 2

ATOM	2811	CE1	TYR	A	379	12.157	59.241	47.515	1.00	61.54	C
ATOM	2812	CZ	TYR	A	379	11.839	59.520	48.842	1.00	66.37	C
ATOM	2813	OH	TYR	A	379	12.850	59.965	49.769	1.00	72.33	O
ATOM	2814	CE2	TYR	A	379	10.505	59.366	49.248	1.00	59.62	C
ATOM	2815	CD2	TYR	A	379	9.471	58.961	48.343	1.00	56.89	C
ATOM	2816	C	TYR	A	379	6.628	56.869	46.147	1.00	65.77	C
ATOM	2817	O	TYR	A	379	5.717	57.630	46.649	1.00	72.35	O
ATOM	2818	N	LEU	A	380	6.290	55.987	45.254	1.00	66.29	N
ATOM	2819	CA	LEU	A	380	4.867	55.996	44.834	1.00	66.27	C
ATOM	2820	CB	LEU	A	380	3.954	55.411	45.976	1.00	67.28	C
ATOM	2821	CG	LEU	A	380	2.633	56.217	46.162	1.00	70.76	C
ATOM	2822	CD1	LEU	A	380	1.725	55.990	44.954	1.00	70.22	C
ATOM	2823	CD2	LEU	A	380	1.816	55.863	47.516	1.00	75.95	C
ATOM	2824	C	LEU	A	380	4.344	57.401	44.386	1.00	63.96	C
ATOM	2825	O	LEU	A	380	4.046	58.245	45.167	1.00	63.26	O
ATOM	2826	N	ILE	A	381	4.220	57.576	43.086	1.00	62.64	N
ATOM	2827	CA	ILE	A	381	3.742	58.753	42.433	1.00	58.31	C
ATOM	2828	CB	ILE	A	381	4.873	59.232	41.542	1.00	60.06	C
ATOM	2829	CG1	ILE	A	381	6.006	59.697	42.447	1.00	62.31	C
ATOM	2830	CD1	ILE	A	381	7.300	59.849	41.613	1.00	66.48	C
ATOM	2831	CG2	ILE	A	381	4.451	60.340	40.720	1.00	59.63	C
ATOM	2832	C	ILE	A	381	2.669	58.313	41.571	1.00	52.45	C
ATOM	2833	O	ILE	A	381	2.789	57.516	40.720	1.00	50.21	O
ATOM	2834	N	PRO	A	382	1.581	58.923	41.833	1.00	52.40	N
ATOM	2835	CA	PRO	A	382	0.239	58.683	41.171	1.00	52.31	C
ATOM	2836	CB	PRO	A	382	-0.762	59.437	42.067	1.00	47.42	C
ATOM	2837	CG	PRO	A	382	0.033	60.479	42.475	1.00	51.12	C
ATOM	2838	CD	PRO	A	382	1.447	59.982	42.810	1.00	52.39	C
ATOM	2839	C	PRO	A	382	0.134	59.148	39.807	1.00	50.33	C
ATOM	2840	O	PRO	A	382	0.640	60.189	39.445	1.00	44.44	O
ATOM	2841	N	LYS	A	383	-0.570	58.300	39.092	1.00	52.90	N
ATOM	2842	CA	LYS	A	383	-0.769	58.506	37.643	1.00	54.17	C
ATOM	2843	CB	LYS	A	383	-1.864	57.641	37.134	1.00	55.66	C
ATOM	2844	CG	LYS	A	383	-2.274	57.954	35.688	1.00	63.37	C
ATOM	2845	CD	LYS	A	383	-2.874	56.627	34.822	1.00	61.24	C
ATOM	2846	CE	LYS	A	383	-4.323	56.783	34.663	1.00	59.82	C
ATOM	2847	NZ	LYS	A	383	-4.813	56.457	33.303	1.00	64.11	N
ATOM	2848	C	LYS	A	383	-1.094	59.910	37.313	1.00	51.96	C
ATOM	2849	O	LYS	A	383	-1.856	60.436	37.938	1.00	54.22	O
ATOM	2850	N	GLY	A	384	-0.374	60.515	36.358	1.00	49.83	N
ATOM	2851	CA	GLY	A	384	-0.575	61.827	35.884	1.00	43.87	C
ATOM	2852	C	GLY	A	384	0.043	62.872	36.674	1.00	43.32	C
ATOM	2853	O	GLY	A	384	-0.186	64.051	36.339	1.00	45.72	O
ATOM	2854	N	THR	A	385	0.808	62.601	37.700	1.00	41.43	N
ATOM	2855	CA	THR	A	385	1.470	63.701	38.408	1.00	40.61	C
ATOM	2856	CB	THR	A	385	2.332	63.157	39.449	1.00	42.39	C
ATOM	2857	OG1	THR	A	385	1.503	62.548	40.487	1.00	51.00	O
ATOM	2858	CG2	THR	A	385	3.180	64.251	40.081	1.00	40.02	C
ATOM	2859	C	THR	A	385	2.461	64.330	37.585	1.00	40.79	C
ATOM	2860	O	THR	A	385	3.173	63.626	37.010	1.00	45.69	O
ATOM	2861	N	THR	A	386	2.550	65.603	37.446	1.00	38.07	N
ATOM	2862	CA	THR	A	386	3.590	66.130	36.640	1.00	38.06	C
ATOM	2863	CB	THR	A	386	3.389	67.600	36.634	1.00	37.32	C
ATOM	2864	OG1	THR	A	386	2.269	67.845	35.851	1.00	40.76	O
ATOM	2865	CG2	THR	A	386	4.612	68.197	36.063	1.00	33.17	C
ATOM	2866	C	THR	A	386	5.067	65.967	37.148	1.00	37.62	C
ATOM	2867	O	THR	A	386	5.318	66.193	38.335	1.00	38.24	O
ATOM	2868	N	ILE	A	387	6.024	65.590	36.262	1.00	36.16	N
ATOM	2869	CA	ILE	A	387	7.521	65.378	36.558	1.00	31.76	C
ATOM	2870	CB	ILE	A	387	7.989	64.111	36.027	1.00	29.92	C
ATOM	2871	CG1	ILE	A	387	6.962	62.991	36.268	1.00	32.74	C
ATOM	2872	CD1	ILE	A	387	6.834	62.689	37.848	1.00	29.50	C
ATOM	2873	CG2	ILE	A	387	9.132	63.779	36.827	1.00	32.42	C
ATOM	2874	C	ILE	A	387	8.383	66.481	35.852	1.00	30.54	C
ATOM	2875	O	ILE	A	387	8.208	66.707	34.715	1.00	26.44	O
ATOM	2876	N	LEU	A	388	9.256	67.184	36.569	1.00	31.45	N
ATOM	2877	CA	LEU	A	388	10.142	68.095	35.999	1.00	30.93	C
ATOM	2878	CB	LEU	A	388	10.182	69.284	36.776	1.00	28.66	C
ATOM	2879	CG	LEU	A	388	9.129	70.328	36.421	1.00	37.51	C
ATOM	2880	CD1	LEU	A	388	9.390	71.618	37.324	1.00	40.96	C
ATOM	2881	CD2	LEU	A	388	9.141	70.820	35.069	1.00	39.21	C
ATOM	2882	C	LEU	A	388	11.585	67.423	36.002	1.00	31.80	C
ATOM	2883	O	LEU	A	388	12.188	67.362	37.032	1.00	30.66	O
ATOM	2884	N	ILE	A	389	12.091	66.931	34.849	1.00	31.06	N
ATOM	2885	CA	ILE	A	389	13.418	66.348	34.649	1.00	28.75	C
ATOM	2886	CB	ILE	A	389	13.465	65.820	33.253	1.00	31.54	C

136/514

Figure 2

ATOM	2887	CG1	ILE	A	389	12.787	64.529	33.056	1.00	34.90	C
ATOM	2888	CD1	ILE	A	389	12.365	63.923	34.188	1.00	33.44	C
ATOM	2889	CG2	ILE	A	389	14.775	65.666	32.837	1.00	42.71	C
ATOM	2890	C	ILE	A	389	14.398	67.520	34.720	1.00	27.65	C
ATOM	2891	O	ILE	A	389	14.204	68.486	33.962	1.00	27.66	O
ATOM	2892	N	SER	A	390	15.458	67.515	35.563	1.00	26.66	N
ATOM	2893	CA	SER	A	390	16.385	68.582	35.540	1.00	26.58	C
ATOM	2894	CB	SER	A	390	17.056	68.705	36.806	1.00	28.07	C
ATOM	2895	OG	SER	A	390	18.335	69.546	36.688	1.00	26.60	O
ATOM	2896	C	SER	A	390	17.521	68.318	34.552	1.00	30.64	C
ATOM	2897	O	SER	A	390	18.560	67.889	34.929	1.00	29.96	O
ATOM	2898	N	LEU	A	391	17.385	68.631	33.293	1.00	30.95	N
ATOM	2899	CA	LEU	A	391	18.499	68.426	32.395	1.00	31.09	C
ATOM	2900	CB	LEU	A	391	18.175	68.909	30.978	1.00	29.23	C
ATOM	2901	CG	LEU	A	391	17.147	68.030	30.347	1.00	24.01	C
ATOM	2902	CD1	LEU	A	391	16.962	68.153	28.920	1.00	19.47	C
ATOM	2903	CD2	LEU	A	391	17.458	66.816	30.680	1.00	22.56	C
ATOM	2904	C	LEU	A	391	19.759	69.190	32.934	1.00	32.60	C
ATOM	2905	O	LEU	A	391	20.917	68.772	32.771	1.00	31.01	O
ATOM	2906	N	THR	A	392	19.557	70.308	33.596	1.00	31.61	N
ATOM	2907	CA	THR	A	392	20.791	71.071	33.980	1.00	30.31	C
ATOM	2908	CB	THR	A	392	20.512	72.186	34.942	1.00	24.61	C
ATOM	2909	OG1	THR	A	392	19.614	72.980	34.341	1.00	32.88	O
ATOM	2910	CG2	THR	A	392	21.643	73.068	35.016	1.00	25.93	C
ATOM	2911	C	THR	A	392	21.729	70.120	34.772	1.00	32.13	C
ATOM	2912	O	THR	A	392	22.894	70.272	34.777	1.00	32.96	O
ATOM	2913	N	SER	A	393	21.147	69.345	35.610	1.00	31.94	N
ATOM	2914	CA	SER	A	393	21.965	68.692	36.500	1.00	31.24	C
ATOM	2915	CB	SER	A	393	21.071	68.125	37.663	1.00	29.73	C
ATOM	2916	OG	SER	A	393	20.295	67.069	36.919	1.00	29.73	O
ATOM	2917	C	SER	A	393	22.664	67.499	35.802	1.00	30.76	C
ATOM	2918	O	SER	A	393	23.523	66.928	36.420	1.00	36.03	O
ATOM	2919	N	VAL	A	394	22.340	67.156	34.671	1.00	31.15	N
ATOM	2920	CA	VAL	A	394	23.070	66.149	33.963	1.00	30.74	C
ATOM	2921	CB	VAL	A	394	22.175	65.420	33.105	1.00	28.59	C
ATOM	2922	CG1	VAL	A	394	22.789	64.274	32.387	1.00	31.57	C
ATOM	2923	CG2	VAL	A	394	21.344	64.713	34.066	1.00	28.72	C
ATOM	2924	C	VAL	A	394	24.127	66.858	33.135	1.00	31.59	C
ATOM	2925	O	VAL	A	394	25.244	66.445	33.231	1.00	34.76	O
ATOM	2926	N	LEU	A	395	23.845	67.971	32.460	1.00	27.31	N
ATOM	2927	CA	LEU	A	395	24.774	68.734	31.599	1.00	22.46	C
ATOM	2928	CB	LEU	A	395	23.991	69.796	30.699	1.00	19.98	C
ATOM	2929	CG	LEU	A	395	23.282	69.358	29.488	1.00	20.86	C
ATOM	2930	CD1	LEU	A	395	22.734	68.239	29.594	1.00	29.75	C
ATOM	2931	CD2	LEU	A	395	22.134	70.125	28.798	1.00	20.97	C
ATOM	2932	C	LEU	A	395	25.847	69.333	32.343	1.00	23.56	C
ATOM	2933	O	LEU	A	395	26.933	69.651	31.905	1.00	26.09	O
ATOM	2934	N	HIS	A	396	25.636	69.570	33.527	1.00	28.76	N
ATOM	2935	CA	HIS	A	396	26.583	70.334	34.359	1.00	28.26	C
ATOM	2936	CB	HIS	A	396	25.878	71.574	34.849	1.00	29.52	C
ATOM	2937	CG	HIS	A	396	25.792	72.665	33.818	1.00	32.98	C
ATOM	2938	ND1	HIS	A	396	26.084	73.964	34.081	1.00	37.63	N
ATOM	2939	CE1	HIS	A	396	25.977	74.667	32.978	1.00	36.33	C
ATOM	2940	NE2	HIS	A	396	25.660	73.866	32.010	1.00	29.73	N
ATOM	2941	CD2	HIS	A	396	25.558	72.624	32.528	1.00	32.12	C
ATOM	2942	C	HIS	A	396	26.951	69.556	35.568	1.00	30.04	C
ATOM	2943	O	HIS	A	396	27.340	70.106	36.467	1.00	29.98	O
ATOM	2944	N	ASP	A	397	26.903	68.244	35.517	1.00	32.35	N
ATOM	2945	CA	ASP	A	397	27.417	67.408	36.607	1.00	30.41	C
ATOM	2946	CB	ASP	A	397	27.180	65.987	36.132	1.00	33.21	C
ATOM	2947	CG	ASP	A	397	27.618	65.012	37.065	1.00	36.54	C
ATOM	2948	OD1	ASP	A	397	28.813	65.040	37.404	1.00	38.33	O
ATOM	2949	OD2	ASP	A	397	26.798	64.225	37.475	1.00	45.27	O
ATOM	2950	C	ASP	A	397	28.773	67.656	36.858	1.00	34.17	C
ATOM	2951	O	ASP	A	397	29.573	67.551	35.952	1.00	38.87	O
ATOM	2952	N	ASN	A	398	29.158	68.043	38.056	1.00	37.73	N
ATOM	2953	CA	ASN	A	398	30.517	68.355	38.511	1.00	37.45	C
ATOM	2954	CB	ASN	A	398	30.533	68.436	40.071	1.00	41.49	C
ATOM	2955	CG	ASN	A	398	30.365	69.856	40.438	1.00	58.53	C
ATOM	2956	OD1	ASN	A	398	29.223	70.284	40.832	1.00	76.00	O
ATOM	2957	ND2	ASN	A	398	31.407	70.706	40.175	1.00	62.66	N
ATOM	2958	C	ASN	A	398	31.554	67.294	38.242	1.00	37.26	C
ATOM	2959	O	ASN	A	398	32.736	67.601	38.278	1.00	39.50	O
ATOM	2960	N	LYS	A	399	31.223	66.059	38.078	1.00	34.56	N
ATOM	2961	CA	LYS	A	399	32.294	65.122	38.051	1.00	35.27	C
ATOM	2962	CB	LYS	A	399	31.825	63.834	38.732	1.00	36.23	C

137/514

Figure 2

ATOM	2963	CG	LYS	A	399	32.619	63.108	39.445	1.00	39.88	C
ATOM	2964	CD	LYS	A	399	32.600	61.526	39.170	1.00	40.60	C
ATOM	2965	CE	LYS	A	399	32.833	60.678	40.670	1.00	45.70	C
ATOM	2966	NZ	LYS	A	399	33.301	59.294	40.224	1.00	47.72	N
ATOM	2967	C	LYS	A	399	32.508	64.754	36.582	1.00	37.20	C
ATOM	2968	O	LYS	A	399	33.602	64.612	36.219	1.00	38.44	O
ATOM	2969	N	GLU	A	400	31.498	64.550	35.721	1.00	36.28	N
ATOM	2970	CA	GLU	A	400	31.823	64.244	34.309	1.00	35.46	C
ATOM	2971	CB	GLU	A	400	30.678	63.650	33.543	1.00	34.38	C
ATOM	2972	CG	GLU	A	400	30.990	63.335	32.154	1.00	36.66	C
ATOM	2973	CD	GLU	A	400	31.031	61.915	31.875	1.00	39.75	C
ATOM	2974	OE1	GLU	A	400	30.888	61.301	30.709	1.00	36.97	O
ATOM	2975	OE2	GLU	A	400	31.297	61.289	32.841	1.00	46.78	O
ATOM	2976	C	GLU	A	400	32.345	65.456	33.633	1.00	36.95	C
ATOM	2977	O	GLU	A	400	33.063	65.301	32.692	1.00	42.25	O
ATOM	2978	N	PHE	A	401	32.050	66.673	34.106	1.00	37.74	N
ATOM	2979	CA	PHE	A	401	32.499	67.881	33.522	1.00	35.75	C
ATOM	2980	CB	PHE	A	401	31.392	68.618	32.750	1.00	32.92	C
ATOM	2981	CG	PHE	A	401	30.545	67.722	31.740	1.00	28.15	C
ATOM	2982	CD1	PHE	A	401	29.397	67.302	32.038	1.00	24.67	C
ATOM	2983	CE1	PHE	A	401	28.594	66.560	31.200	1.00	21.31	C
ATOM	2984	CZ	PHE	A	401	29.056	66.229	29.970	1.00	23.57	C
ATOM	2985	CE2	PHE	A	401	30.300	66.637	29.676	1.00	23.30	C
ATOM	2986	CD2	PHE	A	401	31.010	67.378	30.509	1.00	22.84	C
ATOM	2987	C	PHE	A	401	33.087	68.830	34.584	1.00	42.26	C
ATOM	2988	O	PHE	A	401	32.526	69.802	34.968	1.00	44.16	O
ATOM	2989	N	PRO	A	402	34.338	68.656	34.947	1.00	48.00	N
ATOM	2990	CA	PRO	A	402	35.005	69.408	36.002	1.00	47.82	C
ATOM	2991	CB	PRO	A	402	36.414	69.232	35.781	1.00	49.35	C
ATOM	2992	CG	PRO	A	402	36.370	67.833	35.143	1.00	50.32	C
ATOM	2993	CD	PRO	A	402	35.176	67.613	34.314	1.00	48.52	C
ATOM	2994	C	PRO	A	402	34.739	70.871	36.106	1.00	51.18	C
ATOM	2995	O	PRO	A	402	34.501	71.265	37.258	1.00	58.28	O
ATOM	2996	N	ASN	A	403	34.897	71.744	35.201	1.00	49.90	N
ATOM	2997	CA	ASN	A	403	34.441	73.042	35.659	1.00	48.01	C
ATOM	2998	CB	ASN	A	403	35.506	74.042	35.300	1.00	50.95	C
ATOM	2999	CG	ASN	A	403	36.843	73.804	36.016	1.00	58.12	C
ATOM	3000	OD1	ASN	A	403	36.903	73.936	37.246	1.00	63.74	O
ATOM	3001	ND2	ASN	A	403	37.871	73.398	35.253	1.00	60.58	N
ATOM	3002	C	ASN	A	403	33.194	73.283	34.925	1.00	44.63	C
ATOM	3003	O	ASN	A	403	33.255	73.969	33.826	1.00	45.06	O
ATOM	3004	N	PRO	A	404	32.045	72.809	35.367	1.00	40.50	N
ATOM	3005	CA	PRO	A	404	30.944	72.807	34.473	1.00	39.40	C
ATOM	3006	CB	PRO	A	404	29.909	71.930	35.157	1.00	41.17	C
ATOM	3007	CG	PRO	A	404	30.524	71.425	36.291	1.00	42.61	C
ATOM	3008	CD	PRO	A	404	31.482	72.360	36.601	1.00	39.74	C
ATOM	3009	C	PRO	A	404	30.359	74.029	34.012	1.00	38.29	C
ATOM	3010	O	PRO	A	404	29.560	73.850	33.156	1.00	41.86	O
ATOM	3011	N	GLU	A	405	30.746	75.156	34.412	1.00	37.09	N
ATOM	3012	CA	GLU	A	405	30.222	76.495	34.091	1.00	39.98	C
ATOM	3013	CB	GLU	A	405	29.870	77.310	35.319	1.00	42.08	C
ATOM	3014	CG	GLU	A	405	28.903	76.540	36.337	1.00	56.33	C
ATOM	3015	CD	GLU	A	405	27.482	77.164	36.863	1.00	72.29	C
ATOM	3016	OE1	GLU	A	405	27.182	78.250	37.629	1.00	69.16	O
ATOM	3017	OE2	GLU	A	405	26.564	76.341	36.524	1.00	84.96	O
ATOM	3018	C	GLU	A	405	31.115	77.223	33.363	1.00	36.42	C
ATOM	3019	O	GLU	A	405	30.983	78.464	33.260	1.00	37.91	O
ATOM	3020	N	MET	A	406	32.003	76.446	32.903	1.00	34.96	N
ATOM	3021	CA	MET	A	406	32.887	77.060	32.006	1.00	37.91	C
ATOM	3022	CB	MET	A	406	34.170	77.001	32.619	1.00	41.09	C
ATOM	3023	CG	MET	A	406	34.233	78.209	33.664	1.00	52.44	C
ATOM	3024	SD	MET	A	406	35.928	78.870	33.410	1.00	65.97	S
ATOM	3025	CE	MET	A	406	36.919	77.089	34.361	1.00	57.18	C
ATOM	3026	C	MET	A	406	32.929	76.408	30.644	1.00	35.90	C
ATOM	3027	O	MET	A	406	32.727	75.199	30.487	1.00	36.29	O
ATOM	3028	N	PHE	A	407	33.105	77.182	29.624	1.00	36.68	N
ATOM	3029	CA	PHE	A	407	33.080	76.632	28.246	1.00	35.77	C
ATOM	3030	CB	PHE	A	407	32.769	77.791	27.279	1.00	35.49	C
ATOM	3031	CG	PHE	A	407	32.806	77.443	25.870	1.00	31.68	C
ATOM	3032	CD1	PHE	A	407	31.796	76.708	25.344	1.00	34.68	C
ATOM	3033	CE1	PHE	A	407	31.799	76.403	24.031	1.00	36.41	C
ATOM	3034	CZ	PHE	A	407	32.817	76.879	23.244	1.00	31.31	C
ATOM	3035	CE2	PHE	A	407	33.767	77.574	23.716	1.00	27.33	C
ATOM	3036	CD2	PHE	A	407	33.774	77.851	25.117	1.00	26.32	C
ATOM	3037	C	PHE	A	407	34.345	75.918	27.865	1.00	35.92	C
ATOM	3038	O	PHE	A	407	35.330	76.472	27.850	1.00	33.49	O

Figure 2

ATOM	3039	N	ASP	A	408	34.321	74.620	27.568	1.00	35.52	N
ATOM	3040	CA	ASP	A	408	35.573	74.004	27.170	1.00	33.98	C
ATOM	3041	CB	ASP	A	408	36.257	73.630	28.400	1.00	37.98	C
ATOM	3042	CG	ASP	A	408	37.663	73.100	28.140	1.00	41.68	C
ATOM	3043	OD1	ASP	A	408	38.115	72.511	29.168	1.00	50.75	O
ATOM	3044	OD2	ASP	A	408	38.332	73.213	27.160	1.00	44.88	O
ATOM	3045	C	ASP	A	408	35.409	72.799	26.365	1.00	29.18	C
ATOM	3046	O	ASP	A	408	35.123	71.717	26.949	1.00	30.04	O
ATOM	3047	N	PRO	A	409	35.735	72.872	25.187	1.00	23.44	N
ATOM	3048	CA	PRO	A	409	35.567	71.788	24.234	1.00	25.89	C
ATOM	3049	CB	PRO	A	409	36.207	72.299	22.974	1.00	26.65	C
ATOM	3050	CG	PRO	A	409	36.473	73.781	23.211	1.00	27.22	C
ATOM	3051	CD	PRO	A	409	36.372	74.019	24.639	1.00	24.79	C
ATOM	3052	C	PRO	A	409	36.195	70.524	24.686	1.00	24.42	C
ATOM	3053	O	PRO	A	409	35.783	69.458	24.466	1.00	23.80	O
ATOM	3054	N	HIS	A	410	37.272	70.652	25.410	1.00	28.22	N
ATOM	3055	CA	HIS	A	410	37.898	69.459	26.103	1.00	25.15	C
ATOM	3056	CB	HIS	A	410	39.153	69.802	26.846	1.00	22.47	C
ATOM	3057	CG	HIS	A	410	40.167	70.206	26.031	1.00	28.04	C
ATOM	3058	ND1	HIS	A	410	40.492	69.366	24.918	1.00	24.61	N
ATOM	3059	CE1	HIS	A	410	41.252	70.040	24.049	1.00	28.77	C
ATOM	3060	NE2	HIS	A	410	41.409	71.306	24.460	1.00	30.25	N
ATOM	3061	CD2	HIS	A	410	40.701	71.428	25.719	1.00	33.46	C
ATOM	3062	C	HIS	A	410	37.077	68.646	26.873	1.00	26.77	C
ATOM	3063	O	HIS	A	410	37.391	67.610	27.120	1.00	34.22	O
ATOM	3064	N	HIS	A	411	35.931	69.146	27.312	1.00	29.64	N
ATOM	3065	CA	HIS	A	411	35.025	68.230	27.918	1.00	24.57	C
ATOM	3066	CB	HIS	A	411	33.735	68.976	28.290	1.00	30.03	C
ATOM	3067	CG	HIS	A	411	33.871	69.926	29.464	1.00	33.41	C
ATOM	3068	ND1	HIS	A	411	34.157	69.467	30.713	1.00	27.14	N
ATOM	3069	CE1	HIS	A	411	34.198	70.532	31.520	1.00	37.52	C
ATOM	3070	NE2	HIS	A	411	33.857	71.636	30.862	1.00	30.28	N
ATOM	3071	CD2	HIS	A	411	33.629	71.280	29.563	1.00	38.11	C
ATOM	3072	C	HIS	A	411	34.652	67.170	27.039	1.00	19.94	C
ATOM	3073	O	HIS	A	411	34.065	66.248	27.478	1.00	20.29	O
ATOM	3074	N	PHE	A	412	34.714	67.347	25.692	1.00	22.95	N
ATOM	3075	CA	PHE	A	412	34.347	66.234	24.799	1.00	24.92	C
ATOM	3076	CB	PHE	A	412	33.182	66.661	23.936	1.00	27.19	C
ATOM	3077	CG	PHE	A	412	31.901	66.819	24.652	1.00	24.37	C
ATOM	3078	CD1	PHE	A	412	31.619	67.959	25.218	1.00	30.83	C
ATOM	3079	CE1	PHE	A	412	30.402	68.032	26.038	1.00	32.07	C
ATOM	3080	CZ	PHE	A	412	29.608	66.957	26.132	1.00	24.45	C
ATOM	3081	CE2	PHE	A	412	29.916	65.914	25.584	1.00	22.86	C
ATOM	3082	CD2	PHE	A	412	31.037	65.864	24.792	1.00	27.50	C
ATOM	3083	C	PHE	A	412	35.595	65.696	23.981	1.00	27.19	C
ATOM	3084	O	PHE	A	412	35.462	64.901	23.052	1.00	28.34	O
ATOM	3085	N	LEU	A	413	36.836	66.089	24.382	1.00	27.01	N
ATOM	3086	CA	LEU	A	413	38.044	65.592	23.735	1.00	30.17	C
ATOM	3087	CB	LEU	A	413	38.859	66.751	23.319	1.00	27.99	C
ATOM	3088	CG	LEU	A	413	38.308	67.331	22.152	1.00	27.43	C
ATOM	3089	CD1	LEU	A	413	38.945	68.596	21.752	1.00	25.32	C
ATOM	3090	CD2	LEU	A	413	38.000	66.401	20.974	1.00	24.18	C
ATOM	3091	C	LEU	A	413	38.847	64.592	24.610	1.00	32.78	C
ATOM	3092	O	LEU	A	413	38.796	64.753	25.793	1.00	31.53	O
ATOM	3093	N	ASP	A	414	39.606	63.645	24.068	1.00	31.85	N
ATOM	3094	CA	ASP	A	414	40.473	62.746	24.929	1.00	28.57	C
ATOM	3095	CB	ASP	A	414	40.502	61.296	24.546	1.00	22.22	C
ATOM	3096	CG	ASP	A	414	40.996	61.015	23.193	1.00	33.84	C
ATOM	3097	OD1	ASP	A	414	40.957	59.786	22.695	1.00	40.83	O
ATOM	3098	OD2	ASP	A	414	41.525	61.908	22.371	1.00	39.09	O
ATOM	3099	C	ASP	A	414	41.897	63.402	24.831	1.00	31.69	C
ATOM	3100	O	ASP	A	414	42.060	64.577	24.270	1.00	29.62	O
ATOM	3101	N	GLU	A	415	42.841	62.777	25.471	1.00	32.87	N
ATOM	3102	CA	GLU	A	415	44.246	63.288	25.515	1.00	35.82	C
ATOM	3103	CB	GLU	A	415	45.103	62.096	26.039	1.00	37.50	C
ATOM	3104	CG	GLU	A	415	45.235	60.922	25.058	1.00	37.96	C
ATOM	3105	CD	GLU	A	415	44.462	59.949	25.491	1.00	48.36	C
ATOM	3106	OE1	GLU	A	415	44.764	58.726	25.040	1.00	63.24	O
ATOM	3107	OE2	GLU	A	415	43.591	60.410	26.365	1.00	54.16	O
ATOM	3108	C	GLU	A	415	44.709	63.603	23.971	1.00	35.48	C
ATOM	3109	O	GLU	A	415	45.475	64.504	23.778	1.00	34.35	O
ATOM	3110	N	GLY	A	416	44.315	62.882	22.937	1.00	31.62	N
ATOM	3111	CA	GLY	A	416	44.754	63.356	21.599	1.00	37.60	C
ATOM	3112	C	GLY	A	416	43.653	64.139	20.967	1.00	40.88	C
ATOM	3113	O	GLY	A	416	42.631	64.592	21.525	1.00	47.40	O
ATOM	3114	N	GLY	A	417	43.551	64.310	19.809	1.00	43.54	N

139/514

Figure 2

ATOM	3115	CA	GLY A 417	42.080	65.022	19.474	1.00	43.01	C
ATOM	3116	C	GLY A 417	40.864	64.196	19.675	1.00	37.66	C
ATOM	3117	O	GLY A 417	40.223	64.426	20.323	1.00	49.55	O
ATOM	3118	N	ASN A 418	40.664	63.084	19.315	1.00	35.04	N
ATOM	3119	CA	ASN A 418	39.557	62.322	19.625	1.00	31.25	C
ATOM	3120	CB	ASN A 418	40.111	61.111	20.046	1.00	34.56	C
ATOM	3121	CG	ASN A 418	41.385	60.677	19.211	1.00	41.89	C
ATOM	3122	OD1	ASN A 418	42.397	60.188	19.807	1.00	46.74	O
ATOM	3123	ND2	ASN A 418	41.298	60.692	17.896	1.00	31.68	N
ATOM	3124	C	ASN A 418	38.347	62.736	20.347	1.00	29.21	C
ATOM	3125	O	ASN A 418	38.353	63.044	21.399	1.00	30.03	O
ATOM	3126	N	PHE A 419	37.209	62.694	19.702	1.00	29.30	N
ATOM	3127	CA	PHE A 419	35.940	63.067	20.207	1.00	24.22	C
ATOM	3128	CB	PHE A 419	34.799	62.906	19.081	1.00	21.88	C
ATOM	3129	CG	PHE A 419	33.491	63.208	19.566	1.00	25.92	C
ATOM	3130	CD1	PHE A 419	33.126	64.475	19.815	1.00	32.50	C
ATOM	3131	CE1	PHE A 419	32.018	64.765	20.417	1.00	27.44	C
ATOM	3132	CZ	PHE A 419	31.239	63.948	20.800	1.00	29.11	C
ATOM	3133	CE2	PHE A 419	31.463	62.663	20.682	1.00	28.30	C
ATOM	3134	CD2	PHE A 419	32.654	62.294	20.042	1.00	31.10	C
ATOM	3135	C	PHE A 419	35.707	62.194	21.236	1.00	23.86	C
ATOM	3136	O	PHE A 419	35.912	61.060	21.029	1.00	26.18	O
ATOM	3137	N	LYS A 420	35.202	62.697	22.378	1.00	24.51	N
ATOM	3138	CA	LYS A 420	34.928	61.915	23.562	1.00	23.25	C
ATOM	3139	CB	LYS A 420	35.817	62.419	24.612	1.00	22.28	C
ATOM	3140	CG	LYS A 420	35.324	61.597	25.845	1.00	20.14	C
ATOM	3141	CD	LYS A 420	36.266	61.909	27.200	1.00	25.69	C
ATOM	3142	CE	LYS A 420	36.697	63.314	27.269	1.00	24.09	C
ATOM	3143	NZ	LYS A 420	37.298	63.521	28.510	1.00	27.84	N
ATOM	3144	C	LYS A 420	33.467	61.898	24.025	1.00	26.37	C
ATOM	3145	O	LYS A 420	32.874	62.740	24.378	1.00	32.35	O
ATOM	3146	N	LYS A 421	32.832	60.884	23.933	1.00	29.92	N
ATOM	3147	CA	LYS A 421	31.391	60.984	24.041	1.00	28.55	C
ATOM	3148	CB	LYS A 421	30.568	59.810	23.445	1.00	28.44	C
ATOM	3149	CG	LYS A 421	30.925	58.464	23.891	1.00	31.53	C
ATOM	3150	CD	LYS A 421	30.195	57.508	22.995	1.00	32.42	C
ATOM	3151	CE	LYS A 421	30.498	55.985	23.332	1.00	31.68	C
ATOM	3152	NZ	LYS A 421	30.595	55.408	21.620	1.00	37.96	N
ATOM	3153	C	LYS A 421	31.085	60.930	25.505	1.00	32.29	C
ATOM	3154	O	LYS A 421	31.870	60.635	26.119	1.00	32.44	O
ATOM	3155	N	SER A 422	29.880	61.364	25.985	1.00	35.08	N
ATOM	3156	CA	SER A 422	29.395	61.333	27.315	1.00	26.36	C
ATOM	3157	CB	SER A 422	29.484	62.504	27.911	1.00	26.75	C
ATOM	3158	OG	SER A 422	28.976	62.296	29.159	1.00	22.72	O
ATOM	3159	C	SER A 422	27.925	61.049	27.442	1.00	28.09	C
ATOM	3160	O	SER A 422	27.108	61.493	26.735	1.00	24.14	O
ATOM	3161	N	LYS A 423	27.602	60.194	28.404	1.00	29.75	N
ATOM	3162	CA	LYS A 423	26.273	59.774	28.487	1.00	30.71	C
ATOM	3163	CB	LYS A 423	26.203	58.471	29.138	1.00	32.16	C
ATOM	3164	CG	LYS A 423	26.512	58.489	30.645	1.00	43.10	C
ATOM	3165	CD	LYS A 423	26.876	56.879	31.219	1.00	48.95	C
ATOM	3166	CE	LYS A 423	27.401	56.664	32.663	1.00	46.55	C
ATOM	3167	NZ	LYS A 423	26.735	55.358	33.191	1.00	45.62	N
ATOM	3168	C	LYS A 423	25.592	60.863	29.247	1.00	32.11	C
ATOM	3169	O	LYS A 423	24.556	60.831	29.442	1.00	33.08	O
ATOM	3170	N	TYR A 424	26.265	61.878	29.718	1.00	33.73	N
ATOM	3171	CA	TYR A 424	25.637	62.929	30.443	1.00	30.97	C
ATOM	3172	CB	TYR A 424	26.726	63.578	31.410	1.00	30.42	C
ATOM	3173	CG	TYR A 424	26.918	62.771	32.685	1.00	36.39	C
ATOM	3174	CD1	TYR A 424	26.573	63.259	33.984	1.00	33.17	C
ATOM	3175	CE1	TYR A 424	26.705	62.515	35.025	1.00	38.71	C
ATOM	3176	CZ	TYR A 424	27.218	61.180	34.885	1.00	41.27	C
ATOM	3177	OH	TYR A 424	27.459	60.420	35.962	1.00	39.44	O
ATOM	3178	CE2	TYR A 424	27.590	60.649	33.698	1.00	31.60	C
ATOM	3179	CD2	TYR A 424	27.414	61.433	32.599	1.00	43.17	C
ATOM	3180	C	TYR A 424	25.349	63.987	29.338	1.00	30.11	C
ATOM	3181	O	TYR A 424	25.142	65.105	29.545	1.00	30.13	O
ATOM	3182	N	PHE A 425	25.458	63.727	28.108	1.00	30.60	N
ATOM	3183	CA	PHE A 425	25.154	64.818	27.138	1.00	26.35	C
ATOM	3184	CB	PHE A 425	25.961	64.628	25.957	1.00	22.36	C
ATOM	3185	CG	PHE A 425	25.757	65.636	24.810	1.00	21.27	C
ATOM	3186	CD1	PHE A 425	26.240	66.862	24.935	1.00	15.53	C
ATOM	3187	CE1	PHE A 425	25.989	67.799	23.833	1.00	17.27	C
ATOM	3188	CZ	PHE A 425	25.311	67.360	22.727	1.00	19.45	C
ATOM	3189	CE2	PHE A 425	24.803	66.111	22.643	1.00	13.13	C
ATOM	3190	CD2	PHE A 425	25.052	65.253	23.714	1.00	14.48	C

140/514

Figure 2

ATOM	3191	C	PHE A 425	23.730	64.572	26.684	1.00	26.60	C
ATOM	3192	O	PHE A 425	23.667	63.925	25.841	1.00	26.02	O
ATOM	3193	N	MET A 426	22.729	65.148	27.326	1.00	28.93	N
ATOM	3194	CA	MET A 426	21.354	65.167	27.122	1.00	31.02	C
ATOM	3195	CB	MET A 426	20.623	64.710	28.463	1.00	32.66	C
ATOM	3196	CG	MET A 426	20.767	63.226	28.595	1.00	38.56	C
ATOM	3197	SD	MET A 426	20.034	62.876	30.223	1.00	38.01	S
ATOM	3198	CE	MET A 426	20.314	61.174	30.101	1.00	32.84	C
ATOM	3199	C	MET A 426	20.647	66.562	26.853	1.00	29.20	C
ATOM	3200	O	MET A 426	19.609	66.869	27.291	1.00	27.27	O
ATOM	3201	N	PRO A 427	21.105	67.314	25.989	1.00	27.35	N
ATOM	3202	CA	PRO A 427	20.402	68.541	25.804	1.00	25.07	C
ATOM	3203	CB	PRO A 427	21.365	69.310	24.990	1.00	23.24	C
ATOM	3204	CG	PRO A 427	22.086	68.388	24.331	1.00	25.28	C
ATOM	3205	CD	PRO A 427	22.265	67.095	25.098	1.00	26.71	C
ATOM	3206	C	PRO A 427	19.106	68.377	25.125	1.00	26.67	C
ATOM	3207	O	PRO A 427	18.394	69.231	25.055	1.00	33.00	O
ATOM	3208	N	PHE A 428	18.826	67.278	24.578	1.00	26.30	N
ATOM	3209	CA	PHE A 428	17.729	67.048	23.822	1.00	23.84	C
ATOM	3210	CB	PHE A 428	18.058	66.181	22.446	1.00	22.56	C
ATOM	3211	CG	PHE A 428	18.845	66.926	21.378	1.00	20.64	C
ATOM	3212	CD1	PHE A 428	20.134	66.633	21.114	1.00	14.86	C
ATOM	3213	CE1	PHE A 428	20.754	67.334	20.226	1.00	18.60	C
ATOM	3214	CZ	PHE A 428	20.393	68.359	19.510	1.00	13.22	C
ATOM	3215	CE2	PHE A 428	19.173	68.717	19.617	1.00	24.66	C
ATOM	3216	CD2	PHE A 428	18.313	67.949	20.668	1.00	21.56	C
ATOM	3217	C	PHE A 428	16.970	66.037	24.743	1.00	26.02	C
ATOM	3218	O	PHE A 428	16.098	65.212	24.264	1.00	24.12	O
ATOM	3219	N	SER A 429	17.408	65.961	25.956	1.00	25.33	N
ATOM	3220	CA	SER A 429	16.738	64.953	26.776	1.00	28.05	C
ATOM	3221	CB	SER A 429	15.275	65.151	26.832	1.00	29.78	C
ATOM	3222	CG	SER A 429	14.505	64.467	27.832	1.00	24.86	O
ATOM	3223	C	SER A 429	16.904	63.493	26.485	1.00	29.46	C
ATOM	3224	O	SER A 429	17.908	63.111	25.861	1.00	33.46	O
ATOM	3225	N	ALA A 430	16.040	62.631	26.976	1.00	29.43	N
ATOM	3226	CA	ALA A 430	16.418	61.251	26.861	1.00	32.79	C
ATOM	3227	CB	ALA A 430	17.378	60.875	27.883	1.00	34.73	C
ATOM	3228	C	ALA A 430	15.301	60.367	27.016	1.00	35.64	C
ATOM	3229	O	ALA A 430	14.297	60.732	27.591	1.00	40.99	O
ATOM	3230	N	GLY A 431	15.365	59.171	26.471	1.00	35.52	N
ATOM	3231	CA	GLY A 431	14.178	58.391	26.532	1.00	35.36	C
ATOM	3232	C	GLY A 431	13.122	58.471	25.557	1.00	34.37	C
ATOM	3233	O	GLY A 431	13.297	58.999	24.580	1.00	34.16	O
ATOM	3234	N	LYS A 432	11.982	57.872	25.851	1.00	35.52	N
ATOM	3235	CA	LYS A 432	10.790	57.951	25.000	1.00	35.18	C
ATOM	3236	CB	LYS A 432	9.669	57.193	25.579	1.00	33.20	C
ATOM	3237	CG	LYS A 432	10.016	55.681	25.459	1.00	38.84	C
ATOM	3238	CD	LYS A 432	8.912	54.787	25.606	1.00	51.53	C
ATOM	3239	CE	LYS A 432	9.352	53.280	25.486	1.00	51.42	C
ATOM	3240	NZ	LYS A 432	9.790	52.957	24.017	1.00	53.92	N
ATOM	3241	C	LYS A 432	10.275	59.249	24.425	1.00	35.57	C
ATOM	3242	O	LYS A 432	9.695	59.241	23.419	1.00	39.39	O
ATOM	3243	N	ARG A 433	10.473	60.378	24.996	1.00	37.40	N
ATOM	3244	CA	ARG A 433	10.091	61.650	24.442	1.00	36.00	C
ATOM	3245	CB	ARG A 433	9.646	62.593	25.511	1.00	38.07	C
ATOM	3246	CG	ARG A 433	8.226	62.391	25.977	1.00	46.00	C
ATOM	3247	CD	ARG A 433	7.170	63.358	25.259	1.00	49.80	C
ATOM	3248	NE	ARG A 433	5.894	62.714	25.443	1.00	46.32	N
ATOM	3249	CZ	ARG A 433	4.891	63.168	24.925	1.00	51.59	C
ATOM	3250	NH1	ARG A 433	4.986	64.292	24.225	1.00	48.64	N
ATOM	3251	NH2	ARG A 433	3.772	62.478	25.083	1.00	57.65	N
ATOM	3252	C	ARG A 433	11.243	62.393	23.975	1.00	36.49	C
ATOM	3253	O	ARG A 433	11.161	63.571	23.860	1.00	43.34	O
ATOM	3254	N	ILE A 434	12.355	61.821	23.730	1.00	33.15	N
ATOM	3255	CA	ILE A 434	13.455	62.567	23.257	1.00	31.60	C
ATOM	3256	CB	ILE A 434	14.579	61.611	22.958	1.00	35.14	C
ATOM	3257	CG1	ILE A 434	15.920	62.369	22.792	1.00	39.47	C
ATOM	3258	CD1	ILE A 434	17.193	61.444	22.868	1.00	35.99	C
ATOM	3259	CG2	ILE A 434	14.240	60.806	21.748	1.00	32.51	C
ATOM	3260	C	ILE A 434	13.185	63.412	22.004	1.00	32.95	C
ATOM	3261	O	ILE A 434	12.459	63.056	21.174	1.00	35.21	O
ATOM	3262	N	CYS A 435	13.802	64.520	21.835	1.00	30.99	N
ATOM	3263	CA	CYS A 435	13.540	65.342	20.702	1.00	30.41	C
ATOM	3264	CB	CYS A 435	14.567	66.410	20.626	1.00	32.93	C
ATOM	3265	SG	CYS A 435	14.560	67.604	19.276	1.00	34.31	S
ATOM	3266	C	CYS A 435	13.425	64.749	19.478	1.00	30.43	C

Figure 2

ATOM	3267	O	CYS A 435	14.220	64.096	19.123	1.00	39.21	O
ATOM	3268	N	VAL A 436	12.388	64.949	18.727	1.00	31.68	N
ATOM	3269	CA	VAL A 436	12.167	64.229	17.528	1.00	30.46	C
ATOM	3270	CB	VAL A 436	10.577	64.500	17.176	1.00	32.25	C
ATOM	3271	CG1	VAL A 436	10.294	64.535	15.817	1.00	28.19	C
ATOM	3272	CG2	VAL A 436	9.881	63.298	17.649	1.00	37.42	C
ATOM	3273	C	VAL A 436	13.104	64.823	16.566	1.00	30.03	C
ATOM	3274	O	VAL A 436	13.329	64.307	15.561	1.00	34.40	O
ATOM	3275	N	GLY A 437	13.708	65.882	16.844	1.00	27.13	N
ATOM	3276	CA	GLY A 437	14.661	66.357	15.903	1.00	24.62	C
ATOM	3277	C	GLY A 437	16.133	66.422	16.172	1.00	23.60	C
ATOM	3278	O	GLY A 437	16.963	67.250	15.593	1.00	23.22	O
ATOM	3279	N	GLU A 438	16.522	65.499	16.949	1.00	23.63	N
ATOM	3280	CA	GLU A 438	17.929	65.394	17.264	1.00	23.06	C
ATOM	3281	CB	GLU A 438	18.183	64.227	18.069	1.00	22.05	C
ATOM	3282	CG	GLU A 438	19.204	64.335	19.088	1.00	33.52	C
ATOM	3283	CD	GLU A 438	19.522	62.965	19.770	1.00	40.09	C
ATOM	3284	OE1	GLU A 438	20.471	62.831	20.809	1.00	45.50	O
ATOM	3285	OE2	GLU A 438	18.894	61.954	19.329	1.00	32.86	O
ATOM	3286	C	GLU A 438	18.754	65.446	16.109	1.00	24.83	C
ATOM	3287	O	GLU A 438	19.609	66.388	15.813	1.00	26.82	O
ATOM	3288	N	ALA A 439	18.556	64.501	15.279	1.00	27.54	N
ATOM	3289	CA	ALA A 439	19.457	64.531	14.105	1.00	23.17	C
ATOM	3290	CB	ALA A 439	19.295	63.296	13.374	1.00	22.46	C
ATOM	3291	C	ALA A 439	19.284	65.701	13.316	1.00	22.64	C
ATOM	3292	O	ALA A 439	20.270	66.253	12.830	1.00	29.26	O
ATOM	3293	N	LEU A 440	18.142	66.258	13.186	1.00	23.84	N
ATOM	3294	CA	LEU A 440	18.048	67.404	12.233	1.00	23.84	C
ATOM	3295	CB	LEU A 440	16.578	67.746	11.998	1.00	29.02	C
ATOM	3296	CG	LEU A 440	16.581	69.008	11.060	1.00	28.02	C
ATOM	3297	CD1	LEU A 440	17.079	68.653	9.814	1.00	30.50	C
ATOM	3298	CD2	LEU A 440	15.020	69.233	10.901	1.00	32.05	C
ATOM	3299	C	LEU A 440	18.777	68.485	12.744	1.00	22.11	C
ATOM	3300	O	LEU A 440	19.532	69.109	12.080	1.00	24.46	O
ATOM	3301	N	ALA A 441	18.606	68.709	14.001	1.00	23.08	N
ATOM	3302	CA	ALA A 441	19.397	69.760	14.631	1.00	23.78	C
ATOM	3303	CB	ALA A 441	18.922	69.754	16.131	1.00	26.61	C
ATOM	3304	C	ALA A 441	20.888	69.540	14.627	1.00	24.80	C
ATOM	3305	O	ALA A 441	21.720	70.423	14.550	1.00	26.47	O
ATOM	3306	N	GLY A 442	21.320	68.346	14.798	1.00	25.88	N
ATOM	3307	CA	GLY A 442	22.847	68.075	14.691	1.00	24.51	C
ATOM	3308	C	GLY A 442	23.226	68.405	13.373	1.00	24.88	C
ATOM	3309	O	GLY A 442	24.291	69.038	13.249	1.00	26.51	O
ATOM	3310	N	MET A 443	22.420	68.113	12.350	1.00	26.36	N
ATOM	3311	CA	MET A 443	22.860	68.597	11.004	1.00	24.24	C
ATOM	3312	CB	MET A 443	21.929	68.168	9.954	1.00	26.11	C
ATOM	3313	CG	MET A 443	21.990	66.564	9.638	1.00	28.78	C
ATOM	3314	SD	MET A 443	21.067	66.057	8.142	1.00	34.46	S
ATOM	3315	CE	MET A 443	20.789	64.430	8.759	1.00	40.55	C
ATOM	3316	C	MET A 443	22.847	70.024	10.916	1.00	28.23	C
ATOM	3317	O	MET A 443	23.711	70.664	10.273	1.00	30.35	O
ATOM	3318	N	GLU A 444	21.834	70.745	11.433	1.00	30.44	N
ATOM	3319	CA	GLU A 444	21.912	72.187	11.255	1.00	25.10	C
ATOM	3320	CB	GLU A 444	20.696	72.837	11.636	1.00	27.47	C
ATOM	3321	CG	GLU A 444	19.593	72.375	10.790	1.00	36.61	C
ATOM	3322	CD	GLU A 444	18.238	73.009	11.267	1.00	37.67	C
ATOM	3323	OE1	GLU A 444	18.121	74.132	11.171	1.00	42.56	O
ATOM	3324	OE2	GLU A 444	17.375	72.406	11.775	1.00	42.29	O
ATOM	3325	C	GLU A 444	22.995	72.843	11.963	1.00	25.12	C
ATOM	3326	O	GLU A 444	23.622	73.831	11.365	1.00	26.60	O
ATOM	3327	N	LEU A 445	23.285	72.473	13.223	1.00	23.48	N
ATOM	3328	CA	LEU A 445	24.415	73.161	13.965	1.00	20.44	C
ATOM	3329	CB	LEU A 445	24.585	72.491	15.292	1.00	17.29	C
ATOM	3330	CG	LEU A 445	23.275	72.745	15.985	1.00	16.53	C
ATOM	3331	CD1	LEU A 445	23.283	72.006	17.191	1.00	15.95	C
ATOM	3332	CD2	LEU A 445	23.155	74.390	16.296	1.00	15.27	C
ATOM	3333	C	LEU A 445	25.631	72.898	13.266	1.00	21.74	C
ATOM	3334	O	LEU A 445	26.453	73.898	12.942	1.00	25.33	O
ATOM	3335	N	PHE A 446	25.892	71.618	12.981	1.00	21.72	N
ATOM	3336	CA	PHE A 446	27.233	71.284	12.238	1.00	24.94	C
ATOM	3337	CB	PHE A 446	27.418	69.775	12.071	1.00	28.24	C
ATOM	3338	CG	PHE A 446	28.705	69.426	11.464	1.00	31.13	C
ATOM	3339	CD1	PHE A 446	28.765	69.091	10.213	1.00	36.67	C
ATOM	3340	CE1	PHE A 446	30.090	68.721	9.665	1.00	33.72	C
ATOM	3341	CZ	PHE A 446	31.189	68.711	10.392	1.00	29.13	C
ATOM	3342	CE2	PHE A 446	31.005	68.970	11.637	1.00	35.96	C

Figure 2

ATOM	3343	CD2	PHE	A	446	29.817	69.318	12.183	1.00	30.51	C
ATOM	3344	C	PHE	A	446	27.397	71.956	10.851	1.00	24.14	C
ATOM	3345	O	PHE	A	446	28.337	72.695	10.631	1.00	27.47	O
ATOM	3346	N	LEU	A	447	26.430	71.816	9.918	1.00	21.83	N
ATOM	3347	CA	LEU	A	447	26.526	72.426	8.626	1.00	19.03	C
ATOM	3348	CB	LEU	A	447	25.552	71.758	7.670	1.00	15.66	C
ATOM	3349	CG	LEU	A	447	25.669	70.348	7.718	1.00	21.09	C
ATOM	3350	CD1	LEU	A	447	24.738	69.652	6.790	1.00	27.06	C
ATOM	3351	CD2	LEU	A	447	27.013	69.964	7.178	1.00	25.78	C
ATOM	3352	C	LEU	A	447	26.401	73.901	8.712	1.00	20.66	C
ATOM	3353	O	LEU	A	447	27.093	74.607	7.917	1.00	24.87	O
ATOM	3354	N	PHE	A	448	25.586	74.539	9.542	1.00	20.90	N
ATOM	3355	CA	PHE	A	448	25.638	76.021	9.473	1.00	23.19	C
ATOM	3356	CB	PHE	A	448	24.389	76.698	10.169	1.00	25.18	C
ATOM	3357	CG	PHE	A	448	23.086	76.278	9.605	1.00	21.82	C
ATOM	3358	CD1	PHE	A	448	22.995	75.879	8.366	1.00	24.52	C
ATOM	3359	CE1	PHE	A	448	21.725	75.498	7.870	1.00	32.45	C
ATOM	3360	CZ	PHE	A	448	20.598	75.602	8.617	1.00	27.73	C
ATOM	3361	CE2	PHE	A	448	20.754	76.031	9.801	1.00	26.34	C
ATOM	3362	CD2	PHE	A	448	22.012	76.437	10.264	1.00	22.84	C
ATOM	3363	C	PHE	A	448	26.889	76.584	10.222	1.00	26.18	C
ATOM	3364	O	PHE	A	448	27.414	77.724	9.886	1.00	34.36	O
ATOM	3365	N	LEU	A	449	27.380	75.975	11.301	1.00	26.66	N
ATOM	3366	CA	LEU	A	449	28.534	76.567	11.943	1.00	24.70	C
ATOM	3367	CB	LEU	A	449	28.797	75.890	13.329	1.00	27.48	C
ATOM	3368	CG	LEU	A	449	27.742	76.246	14.277	1.00	29.63	C
ATOM	3369	CD1	LEU	A	449	28.109	75.767	15.600	1.00	28.18	C
ATOM	3370	CD2	LEU	A	449	27.401	77.752	14.404	1.00	25.11	C
ATOM	3371	C	LEU	A	449	29.810	76.353	10.919	1.00	25.44	C
ATOM	3372	O	LEU	A	449	30.560	77.352	10.673	1.00	23.68	O
ATOM	3373	N	THR	A	450	30.132	75.120	10.310	1.00	24.67	N
ATOM	3374	CA	THR	A	450	31.272	74.864	9.435	1.00	22.89	C
ATOM	3375	CB	THR	A	450	31.391	73.522	9.113	1.00	23.85	C
ATOM	3376	OG1	THR	A	450	30.169	73.045	8.776	1.00	30.71	O
ATOM	3377	CG2	THR	A	450	31.615	72.596	10.322	1.00	27.83	C
ATOM	3378	C	THR	A	450	31.139	75.736	8.335	1.00	22.07	C
ATOM	3379	O	THR	A	450	32.067	76.398	8.008	1.00	27.80	O
ATOM	3380	N	SER	A	451	29.927	75.871	7.760	1.00	22.44	N
ATOM	3381	CA	SER	A	451	29.678	76.786	6.649	1.00	21.38	C
ATOM	3382	CB	SER	A	451	28.348	76.740	5.926	1.00	22.74	C
ATOM	3383	OG	SER	A	451	28.104	75.305	5.479	1.00	21.65	O
ATOM	3384	C	SER	A	451	30.002	78.172	7.060	1.00	25.05	C
ATOM	3385	O	SER	A	451	30.734	78.797	6.361	1.00	30.97	O
ATOM	3386	N	ILE	A	452	29.529	78.739	8.198	1.00	24.60	N
ATOM	3387	CA	ILE	A	452	29.870	80.104	8.398	1.00	24.35	C
ATOM	3388	CB	ILE	A	452	29.240	80.541	9.594	1.00	28.69	C
ATOM	3389	CG1	ILE	A	452	27.698	80.418	9.545	1.00	28.64	C
ATOM	3390	CD1	ILE	A	452	27.006	81.225	10.523	1.00	29.85	C
ATOM	3391	CG2	ILE	A	452	29.934	81.851	10.159	1.00	25.54	C
ATOM	3392	C	ILE	A	452	31.375	80.258	8.611	1.00	29.19	C
ATOM	3393	O	ILE	A	452	32.021	81.211	8.143	1.00	31.84	O
ATOM	3394	N	LEU	A	453	32.039	79.359	9.378	1.00	32.77	N
ATOM	3395	CA	LEU	A	453	33.513	79.614	9.684	1.00	30.05	C
ATOM	3396	CB	LEU	A	453	34.003	78.881	10.872	1.00	28.07	C
ATOM	3397	CG	LEU	A	453	33.351	79.369	12.142	1.00	32.12	C
ATOM	3398	CD1	LEU	A	453	33.689	78.528	13.261	1.00	32.23	C
ATOM	3399	CD2	LEU	A	453	33.853	80.716	12.422	1.00	34.63	C
ATOM	3400	C	LEU	A	453	34.317	79.216	8.457	1.00	30.64	C
ATOM	3401	O	LEU	A	453	35.379	79.722	8.234	1.00	32.72	O
ATOM	3402	N	GLN	A	454	33.885	78.301	7.665	1.00	30.34	N
ATOM	3403	CA	GLN	A	454	34.646	78.196	6.424	1.00	30.29	C
ATOM	3404	CB	GLN	A	454	34.105	77.169	5.531	1.00	30.16	C
ATOM	3405	CG	GLN	A	454	34.662	77.098	4.230	1.00	27.18	C
ATOM	3406	CD	GLN	A	454	33.786	76.191	3.356	1.00	28.06	C
ATOM	3407	OE1	GLN	A	454	34.198	75.165	2.783	1.00	32.96	O
ATOM	3408	NE2	GLN	A	454	32.462	76.559	3.277	1.00	37.07	N
ATOM	3409	C	GLN	A	454	34.637	79.381	5.660	1.00	33.30	C
ATOM	3410	O	GLN	A	454	35.441	79.486	4.865	1.00	33.29	O
ATOM	3411	N	ASN	A	455	33.700	80.403	5.895	1.00	39.99	N
ATOM	3412	CA	ASN	A	455	33.660	81.575	4.907	1.00	36.63	C
ATOM	3413	CB	ASN	A	455	32.336	81.602	4.266	1.00	40.83	C
ATOM	3414	CG	ASN	A	455	32.085	80.506	3.179	1.00	31.62	C
ATOM	3415	OD1	ASN	A	455	32.188	80.745	2.017	1.00	32.70	O
ATOM	3416	ND2	ASN	A	455	31.667	79.375	3.612	1.00	32.54	N
ATOM	3417	C	ASN	A	455	33.942	82.897	5.496	1.00	37.67	C
ATOM	3418	O	ASN	A	455	34.253	83.828	4.785	1.00	36.43	O

Figure 2

ATOM	3419	N	PHE A 456	33.928	83.054	6.817	1.00	37.22	N
ATOM	3420	CA	PHE A 456	34.210	84.339	7.380	1.00	34.49	C
ATOM	3421	CB	PHE A 456	32.883	84.970	7.918	1.00	35.24	C
ATOM	3422	CG	PHE A 456	31.768	84.943	6.913	1.00	39.50	C
ATOM	3423	CD1	PHE A 456	31.708	86.011	5.890	1.00	48.66	C
ATOM	3424	CE1	PHE A 456	30.820	86.016	4.944	1.00	41.39	C
ATOM	3425	CZ	PHE A 456	29.901	85.021	4.900	1.00	43.01	C
ATOM	3426	CE2	PHE A 456	29.974	84.012	5.836	1.00	41.87	C
ATOM	3427	CD2	PHE A 456	30.924	84.009	6.866	1.00	30.66	C
ATOM	3428	C	PHE A 456	34.950	84.096	8.668	1.00	37.76	C
ATOM	3429	O	PHE A 456	34.979	82.922	9.229	1.00	38.75	O
ATOM	3430	N	ASN A 457	35.446	85.217	9.243	1.00	37.45	N
ATOM	3431	CA	ASN A 457	36.044	85.296	10.424	1.00	37.15	C
ATOM	3432	CB	ASN A 457	37.381	85.880	10.202	1.00	38.66	C
ATOM	3433	CG	ASN A 457	38.454	84.865	9.603	1.00	40.12	C
ATOM	3434	OD1	ASN A 457	38.587	83.774	9.963	1.00	46.20	O
ATOM	3435	ND2	ASN A 457	39.169	85.312	8.691	1.00	44.89	N
ATOM	3436	C	ASN A 457	35.155	86.179	11.327	1.00	41.18	C
ATOM	3437	O	ASN A 457	34.640	87.127	10.853	1.00	46.11	O
ATOM	3438	N	LEU A 458	34.974	85.918	12.605	1.00	40.14	N
ATOM	3439	CA	LEU A 458	33.997	86.595	13.284	1.00	39.88	C
ATOM	3440	CB	LEU A 458	33.375	85.688	14.288	1.00	37.80	C
ATOM	3441	CG	LEU A 458	32.982	84.424	13.698	1.00	36.71	C
ATOM	3442	CD1	LEU A 458	32.377	83.588	14.614	1.00	39.33	C
ATOM	3443	CD2	LEU A 458	32.149	84.621	12.549	1.00	39.58	C
ATOM	3444	C	LEU A 458	34.707	87.721	13.966	1.00	43.61	C
ATOM	3445	O	LEU A 458	35.466	87.544	14.682	1.00	44.98	O
ATOM	3446	N	LYS A 459	34.375	88.945	13.763	1.00	49.38	N
ATOM	3447	CA	LYS A 459	35.039	89.984	14.492	1.00	51.89	C
ATOM	3448	CB	LYS A 459	35.626	90.878	13.478	1.00	53.92	C
ATOM	3449	GG	LYS A 459	35.990	92.222	14.141	1.00	64.73	C
ATOM	3450	CD	LYS A 459	37.382	92.823	13.650	1.00	67.10	C
ATOM	3451	CE	LYS A 459	37.345	94.421	13.781	1.00	66.68	C
ATOM	3452	NZ	LYS A 459	36.653	95.081	12.655	1.00	69.41	N
ATOM	3453	C	LYS A 459	34.135	90.716	15.416	1.00	50.73	C
ATOM	3454	O	LYS A 459	33.038	91.083	15.106	1.00	48.99	O
ATOM	3455	N	SER A 460	34.594	90.863	16.612	1.00	56.40	N
ATOM	3456	CA	SER A 460	33.801	91.531	17.627	1.00	60.33	C
ATOM	3457	CB	SER A 460	33.999	90.989	18.969	1.00	61.28	C
ATOM	3458	OG	SER A 460	33.349	91.861	19.917	1.00	69.47	O
ATOM	3459	C	SER A 460	34.171	92.877	17.708	1.00	62.99	C
ATOM	3460	O	SER A 460	35.218	93.214	17.334	1.00	66.26	O
ATOM	3461	N	LEU A 461	33.264	93.720	18.129	1.00	68.82	N
ATOM	3462	CA	LEU A 461	33.506	95.197	18.212	1.00	70.90	C
ATOM	3463	CB	LEU A 461	32.336	95.964	17.596	1.00	72.39	C
ATOM	3464	CG	LEU A 461	30.920	95.416	17.435	1.00	73.22	C
ATOM	3465	CD1	LEU A 461	29.866	96.648	17.403	1.00	78.78	C
ATOM	3466	CD2	LEU A 461	30.902	94.606	16.158	1.00	71.60	C
ATOM	3467	C	LEU A 461	33.691	95.633	19.651	1.00	71.22	C
ATOM	3468	O	LEU A 461	34.473	96.436	20.058	1.00	70.80	O
ATOM	3469	N	VAL A 462	32.917	95.049	20.473	1.00	73.35	N
ATOM	3470	CA	VAL A 462	33.059	95.305	21.918	1.00	74.14	C
ATOM	3471	CB	VAL A 462	31.656	95.295	22.613	1.00	74.59	C
ATOM	3472	CG1	VAL A 462	31.180	93.947	22.816	1.00	79.89	C
ATOM	3473	CG2	VAL A 462	31.571	96.177	23.898	1.00	77.32	C
ATOM	3474	C	VAL A 462	34.130	94.457	22.603	1.00	70.46	C
ATOM	3475	O	VAL A 462	33.983	94.089	23.715	1.00	68.61	O
ATOM	3476	N	ASP A 463	35.214	94.225	21.892	1.00	67.06	N
ATOM	3477	CA	ASP A 463	36.425	93.681	22.500	1.00	64.31	C
ATOM	3478	CB	ASP A 463	37.200	94.779	23.102	1.00	65.86	C
ATOM	3479	CG	ASP A 463	38.021	94.365	24.270	1.00	77.29	C
ATOM	3480	OD1	ASP A 463	38.940	93.423	24.033	1.00	86.33	O
ATOM	3481	OD2	ASP A 463	37.797	94.940	25.463	1.00	80.32	O
ATOM	3482	C	ASP A 463	36.307	92.446	23.429	1.00	59.64	C
ATOM	3483	O	ASP A 463	35.916	92.425	24.613	1.00	59.49	O
ATOM	3484	N	PRO A 464	36.883	91.362	22.870	1.00	48.85	N
ATOM	3485	CA	PRO A 464	36.458	89.976	23.312	1.00	44.23	C
ATOM	3486	CB	PRO A 464	37.412	88.927	22.579	1.00	38.88	C
ATOM	3487	CG	PRO A 464	38.713	89.707	22.514	1.00	44.60	C
ATOM	3488	CD	PRO A 464	38.009	91.196	21.791	1.00	47.11	C
ATOM	3489	C	PRO A 464	36.357	89.839	24.763	1.00	42.49	C
ATOM	3490	O	PRO A 464	35.144	89.781	25.306	1.00	58.52	O
ATOM	3491	N	LYS A 465	37.366	89.469	25.424	1.00	39.46	N
ATOM	3492	CA	LYS A 465	37.705	89.736	26.889	1.00	36.21	C
ATOM	3493	CB	LYS A 465	38.898	90.802	26.713	1.00	34.46	C
ATOM	3494	CG	LYS A 465	40.197	90.321	27.391	1.00	39.33	C

Figure 2

ATOM	3495	CD	LYS	A	465	40.108	90.884	28.798	1.00	44.06	C
ATOM	3496	CE	LYS	A	465	41.583	90.314	29.537	1.00	42.88	C
ATOM	3497	NZ	LYS	A	465	41.283	90.451	31.181	1.00	35.01	N
ATOM	3498	C	LYS	A	465	36.763	90.362	27.701	1.00	35.15	C
ATOM	3499	O	LYS	A	465	36.631	89.908	29.036	1.00	45.78	O
ATOM	3500	N	ASN	A	466	36.129	91.449	27.235	1.00	34.35	N
ATOM	3501	CA	ASN	A	466	35.376	92.139	28.584	1.00	41.13	C
ATOM	3502	CB	ASN	A	466	34.667	93.399	28.164	1.00	35.78	C
ATOM	3503	CG	ASN	A	466	35.333	94.583	28.969	1.00	52.20	C
ATOM	3504	OD1	ASN	A	466	35.104	94.690	30.365	1.00	40.93	O
ATOM	3505	ND2	ASN	A	466	36.263	95.456	28.228	1.00	39.39	N
ATOM	3506	C	ASN	A	466	34.192	90.983	28.661	1.00	44.73	C
ATOM	3507	O	ASN	A	466	34.354	90.094	29.675	1.00	55.90	O
ATOM	3508	N	LEU	A	467	33.417	91.029	27.286	1.00	53.18	N
ATOM	3509	CA	LEU	A	467	32.024	90.573	26.701	1.00	55.71	C
ATOM	3510	CB	LEU	A	467	31.823	90.343	25.189	1.00	57.50	C
ATOM	3511	CG	LEU	A	467	32.715	89.441	24.449	1.00	60.99	C
ATOM	3512	CD1	LEU	A	467	31.945	88.144	24.367	1.00	65.13	C
ATOM	3513	CD2	LEU	A	467	33.040	89.848	23.044	1.00	69.58	C
ATOM	3514	C	LEU	A	467	31.601	89.441	27.401	1.00	57.97	C
ATOM	3515	O	LEU	A	467	32.381	88.631	27.610	1.00	62.83	O
ATOM	3516	N	ASP	A	468	30.401	89.437	27.956	1.00	60.15	N
ATOM	3517	CA	ASP	A	468	29.943	88.386	28.920	1.00	58.38	C
ATOM	3518	CB	ASP	A	468	29.141	89.127	30.031	1.00	62.27	C
ATOM	3519	CG	ASP	A	468	28.045	88.247	30.779	1.00	70.63	C
ATOM	3520	OD1	ASP	A	468	26.927	87.904	30.104	1.00	84.27	O
ATOM	3521	OD2	ASP	A	468	28.235	87.875	32.007	1.00	63.47	O
ATOM	3522	C	ASP	A	468	29.117	87.359	28.236	1.00	53.98	C
ATOM	3523	O	ASP	A	468	28.397	87.718	27.338	1.00	51.07	O
ATOM	3524	N	THR	A	469	29.223	86.072	28.664	1.00	50.24	N
ATOM	3525	CA	THR	A	469	28.514	85.105	28.009	1.00	45.30	C
ATOM	3526	CB	THR	A	469	29.459	84.188	27.341	1.00	45.43	C
ATOM	3527	OG1	THR	A	469	30.094	83.203	28.312	1.00	49.16	O
ATOM	3528	CG2	THR	A	469	30.372	84.880	26.607	1.00	38.34	C
ATOM	3529	C	THR	A	469	27.678	84.448	28.855	1.00	46.20	C
ATOM	3530	O	THR	A	469	27.145	83.321	28.685	1.00	44.94	O
ATOM	3531	N	THR	A	470	27.384	85.129	29.848	1.00	51.45	N
ATOM	3532	CA	THR	A	470	26.527	84.449	30.869	1.00	56.34	C
ATOM	3533	CB	THR	A	470	26.712	85.212	32.213	1.00	59.93	C
ATOM	3534	OG1	THR	A	470	28.178	85.390	32.454	1.00	56.12	O
ATOM	3535	CG2	THR	A	470	26.004	84.395	33.325	1.00	62.00	C
ATOM	3536	C	THR	A	470	25.093	84.406	30.501	1.00	53.44	C
ATOM	3537	O	THR	A	470	24.576	85.367	30.141	1.00	52.84	O
ATOM	3538	N	PRO	A	471	24.543	83.250	30.528	1.00	53.93	N
ATOM	3539	CA	PRO	A	471	23.157	83.035	30.193	1.00	54.03	C
ATOM	3540	CB	PRO	A	471	22.896	81.569	30.583	1.00	53.21	C
ATOM	3541	CG	PRO	A	471	24.294	80.863	30.402	1.00	54.68	C
ATOM	3542	CD	PRO	A	471	25.271	82.003	30.757	1.00	55.52	C
ATOM	3543	C	PRO	A	471	22.264	83.913	30.839	1.00	54.41	C
ATOM	3544	O	PRO	A	471	22.454	83.962	31.933	1.00	55.24	O
ATOM	3545	N	VAL	A	472	21.346	84.616	30.189	1.00	55.59	N
ATOM	3546	CA	VAL	A	472	20.300	85.316	30.903	1.00	56.29	C
ATOM	3547	CB	VAL	A	472	19.789	86.503	30.142	1.00	57.84	C
ATOM	3548	CG1	VAL	A	472	18.401	86.879	30.441	1.00	56.23	C
ATOM	3549	CG2	VAL	A	472	20.671	87.685	30.264	1.00	56.11	C
ATOM	3550	C	VAL	A	472	19.093	84.281	30.945	1.00	57.85	C
ATOM	3551	O	VAL	A	472	18.617	83.766	29.991	1.00	55.08	O
ATOM	3552	N	VAL	A	473	18.643	83.995	32.125	1.00	62.90	N
ATOM	3553	CA	VAL	A	473	17.553	83.025	32.512	1.00	67.28	C
ATOM	3554	CB	VAL	A	473	17.946	82.138	33.748	1.00	68.23	C
ATOM	3555	CG1	VAL	A	473	16.700	81.383	34.408	1.00	72.91	C
ATOM	3556	CG2	VAL	A	473	19.091	81.184	33.423	1.00	66.18	C
ATOM	3557	C	VAL	A	473	16.222	83.572	33.032	1.00	68.21	C
ATOM	3558	O	VAL	A	473	16.093	84.590	33.730	1.00	68.58	O
ATOM	3559	N	ASN	A	474	15.185	82.861	32.682	1.00	68.12	N
ATOM	3560	CA	ASN	A	474	13.896	83.296	33.173	1.00	66.39	C
ATOM	3561	CB	ASN	A	474	13.306	84.344	32.257	1.00	69.68	C
ATOM	3562	CG	ASN	A	474	13.887	85.738	32.497	1.00	74.57	C
ATOM	3563	OD1	ASN	A	474	14.393	86.348	31.612	1.00	81.52	O
ATOM	3564	ND2	ASN	A	474	13.928	86.153	33.698	1.00	80.22	N
ATOM	3565	C	ASN	A	474	13.021	82.139	33.232	1.00	63.02	C
ATOM	3566	O	ASN	A	474	12.494	81.666	32.281	1.00	61.74	O
ATOM	3567	N	GLY	A	475	12.917	81.638	34.437	1.00	62.66	N
ATOM	3568	CA	GLY	A	475	12.166	80.455	34.715	1.00	62.09	C
ATOM	3569	C	GLY	A	475	12.801	79.197	34.169	1.00	61.57	C
ATOM	3570	O	GLY	A	475	13.723	78.744	34.807	1.00	60.50	O

145/514

Figure 2

ATOM	3571	N	PHE	A	476	12.299	78.698	33.026	1.00	59.89	N
ATOM	3572	CA	PHE	A	476	12.759	77.532	32.358	1.00	58.52	C
ATOM	3573	CB	PHE	A	476	11.597	76.507	32.207	1.00	60.22	C
ATOM	3574	CG	PHE	A	476	10.855	76.126	33.479	1.00	59.53	C
ATOM	3575	CD1	PHE	A	476	9.485	75.890	33.420	1.00	61.38	C
ATOM	3576	CE1	PHE	A	476	8.815	75.564	34.470	1.00	63.90	C
ATOM	3577	CZ	PHE	A	476	9.522	75.436	35.761	1.00	65.94	C
ATOM	3578	CE2	PHE	A	476	10.782	75.642	35.838	1.00	57.02	C
ATOM	3579	CD2	PHE	A	476	11.480	75.990	34.650	1.00	62.17	C
ATOM	3580	C	PHE	A	476	13.331	77.840	30.910	1.00	58.82	C
ATOM	3581	O	PHE	A	476	13.253	77.068	29.970	1.00	58.47	O
ATOM	3582	N	ALA	A	477	13.841	78.998	30.637	1.00	58.46	N
ATOM	3583	CA	ALA	A	477	14.456	79.146	29.346	1.00	56.19	C
ATOM	3584	CB	ALA	A	477	13.504	79.551	28.425	1.00	56.12	C
ATOM	3585	C	ALA	A	477	15.684	80.160	29.494	1.00	55.58	C
ATOM	3586	O	ALA	A	477	15.572	81.172	30.352	1.00	54.41	O
ATOM	3587	N	SER	A	478	16.826	79.889	28.767	1.00	48.90	N
ATOM	3588	CA	SER	A	478	17.892	80.862	28.808	1.00	46.41	C
ATOM	3589	CB	SER	A	478	19.106	80.437	29.582	1.00	47.92	C
ATOM	3590	OG	SER	A	478	19.115	79.076	29.850	1.00	60.89	O
ATOM	3591	C	SER	A	478	18.275	81.350	27.519	1.00	39.52	C
ATOM	3592	O	SER	A	478	17.907	80.746	26.582	1.00	38.61	O
ATOM	3593	N	VAL	A	479	18.930	82.490	27.460	1.00	33.46	N
ATOM	3594	CA	VAL	A	479	19.342	82.945	26.228	1.00	31.39	C
ATOM	3595	CB	VAL	A	479	18.216	83.957	25.689	1.00	33.06	C
ATOM	3596	CG1	VAL	A	479	16.923	83.562	25.463	1.00	30.10	C
ATOM	3597	CG2	VAL	A	479	18.065	85.072	26.532	1.00	33.31	C
ATOM	3598	C	VAL	A	479	20.573	83.800	26.316	1.00	29.61	C
ATOM	3599	O	VAL	A	479	20.783	84.403	27.306	1.00	31.08	O
ATOM	3600	N	PRO	A	480	21.253	83.964	25.284	1.00	25.96	N
ATOM	3601	CA	PRO	A	480	22.473	84.715	25.399	1.00	29.92	C
ATOM	3602	CB	PRO	A	480	23.188	84.458	24.052	1.00	31.60	C
ATOM	3603	CG	PRO	A	480	22.058	84.127	23.195	1.00	23.48	C
ATOM	3604	CD	PRO	A	480	20.976	83.430	23.976	1.00	22.21	C
ATOM	3605	C	PRO	A	480	22.248	86.124	25.454	1.00	33.37	C
ATOM	3606	O	PRO	A	480	21.134	86.422	25.232	1.00	41.87	O
ATOM	3607	N	PRO	A	481	23.149	86.955	25.844	1.00	32.12	N
ATOM	3608	CA	PRO	A	481	22.917	88.354	25.942	1.00	32.03	C
ATOM	3609	CB	PRO	A	481	24.077	88.822	26.910	1.00	28.61	C
ATOM	3610	CG	PRO	A	481	25.141	87.859	26.609	1.00	36.01	C
ATOM	3611	CD	PRO	A	481	24.368	86.573	26.535	1.00	33.17	C
ATOM	3612	C	PRO	A	481	23.107	88.921	24.646	1.00	31.85	C
ATOM	3613	O	PRO	A	481	23.778	88.320	23.868	1.00	39.05	O
ATOM	3614	N	PHE	A	482	22.802	90.116	24.384	1.00	30.85	N
ATOM	3615	CA	PHE	A	482	22.897	90.614	23.050	1.00	32.29	C
ATOM	3616	CB	PHE	A	482	21.997	91.955	23.014	1.00	36.52	C
ATOM	3617	CG	PHE	A	482	22.279	92.896	21.857	1.00	34.68	C
ATOM	3618	CD1	PHE	A	482	23.347	93.746	21.917	1.00	35.52	C
ATOM	3619	CE1	PHE	A	482	23.591	94.583	20.857	1.00	42.04	C
ATOM	3620	CZ	PHE	A	482	22.818	94.523	19.752	1.00	35.29	C
ATOM	3621	CE2	PHE	A	482	21.764	93.710	19.753	1.00	33.14	C
ATOM	3622	CD2	PHE	A	482	21.497	92.907	20.808	1.00	29.54	C
ATOM	3623	C	PHE	A	482	24.232	90.972	22.624	1.00	33.23	C
ATOM	3624	O	PHE	A	482	24.854	91.470	23.330	1.00	36.50	O
ATOM	3625	N	TYR	A	483	24.623	90.893	21.384	1.00	35.53	N
ATOM	3626	CA	TYR	A	483	25.952	91.311	20.992	1.00	34.41	C
ATOM	3627	CB	TYR	A	483	26.970	90.163	21.215	1.00	31.37	C
ATOM	3628	CG	TYR	A	483	26.706	88.919	20.355	1.00	29.31	C
ATOM	3629	CD1	TYR	A	483	27.306	88.708	19.230	1.00	35.44	C
ATOM	3630	CE1	TYR	A	483	26.985	87.551	18.474	1.00	31.41	C
ATOM	3631	CZ	TYR	A	483	26.100	86.702	18.945	1.00	32.86	C
ATOM	3632	OH	TYR	A	483	25.720	85.546	18.172	1.00	33.74	O
ATOM	3633	CE2	TYR	A	483	25.592	86.890	20.102	1.00	28.78	C
ATOM	3634	CD2	TYR	A	483	25.862	87.937	20.760	1.00	32.30	C
ATOM	3635	C	TYR	A	483	25.904	91.546	19.504	1.00	34.06	C
ATOM	3636	O	TYR	A	483	24.970	91.318	18.969	1.00	35.82	O
ATOM	3637	N	GLN	A	484	26.937	91.930	18.892	1.00	33.09	N
ATOM	3638	CA	GLN	A	484	27.029	92.067	17.553	1.00	37.56	C
ATOM	3639	CB	GLN	A	484	27.069	93.555	17.262	1.00	38.11	C
ATOM	3640	CG	GLN	A	484	25.750	94.419	17.859	1.00	48.84	C
ATOM	3641	CD	GLN	A	484	25.693	95.916	17.291	1.00	43.03	C
ATOM	3642	OE1	GLN	A	484	26.691	96.670	17.479	1.00	50.28	O
ATOM	3643	NE2	GLN	A	484	24.634	96.290	16.620	1.00	45.10	N
ATOM	3644	C	GLN	A	484	28.355	91.551	16.993	1.00	38.46	C
ATOM	3645	O	GLN	A	484	29.354	91.410	17.783	1.00	44.48	O
ATOM	3646	N	LEU	A	485	28.492	91.368	15.686	1.00	35.24	N

Figure 2

ATOM	3647	CA	LEU A 485	29.770	90.978	15.184	1.00	36.57	C
ATOM	3648	CB	LEU A 485	29.937	89.499	15.426	1.00	35.43	C
ATOM	3649	CG	LEU A 485	29.071	88.535	14.686	1.00	33.32	C
ATOM	3650	CD1	LEU A 485	29.382	87.082	15.026	1.00	41.27	C
ATOM	3651	CD2	LEU A 485	27.741	88.636	15.204	1.00	45.06	C
ATOM	3652	C	LEU A 485	29.822	91.242	13.686	1.00	38.80	C
ATOM	3653	O	LEU A 485	28.770	91.400	13.083	1.00	39.49	O
ATOM	3654	N	CYS A 486	30.990	91.198	13.054	1.00	38.36	N
ATOM	3655	CA	CYS A 486	31.025	91.449	11.672	1.00	38.88	C
ATOM	3656	CB	CYS A 486	32.125	92.467	11.344	1.00	39.10	C
ATOM	3657	SG	CYS A 486	32.065	93.975	12.423	1.00	50.86	S
ATOM	3658	C	CYS A 486	31.412	90.187	11.022	1.00	41.75	C
ATOM	3659	O	CYS A 486	32.413	89.554	11.529	1.00	43.95	O
ATOM	3660	N	PHE A 487	30.789	89.794	9.894	1.00	39.47	N
ATOM	3661	CA	PHE A 487	31.303	88.627	9.297	1.00	37.24	C
ATOM	3662	CB	PHE A 487	30.151	87.918	8.679	1.00	37.05	C
ATOM	3663	CG	PHE A 487	29.171	87.468	9.780	1.00	32.50	C
ATOM	3664	CD1	PHE A 487	28.305	88.292	10.282	1.00	32.57	C
ATOM	3665	CE1	PHE A 487	27.437	87.951	11.329	1.00	30.85	C
ATOM	3666	C2	PHE A 487	27.461	86.660	11.888	1.00	27.41	C
ATOM	3667	CE2	PHE A 487	28.252	85.842	11.350	1.00	37.43	C
ATOM	3668	CD2	PHE A 487	29.150	86.213	10.247	1.00	32.50	C
ATOM	3669	C	PHE A 487	32.375	88.965	8.338	1.00	38.78	C
ATOM	3670	O	PHE A 487	32.097	89.225	7.269	1.00	44.31	O
ATOM	3671	N	ILE A 488	33.625	88.961	8.650	1.00	39.02	N
ATOM	3672	CA	ILE A 488	34.578	89.290	7.617	1.00	40.97	C
ATOM	3673	CB	ILE A 488	35.887	89.707	8.249	1.00	40.79	C
ATOM	3674	CG1	ILE A 488	35.835	91.077	8.741	1.00	42.28	C
ATOM	3675	CD1	ILE A 488	35.219	91.059	9.907	1.00	53.46	C
ATOM	3676	CG2	ILE A 488	36.887	89.756	7.203	1.00	39.89	C
ATOM	3677	C	ILE A 488	35.004	88.193	6.673	1.00	42.92	C
ATOM	3678	O	ILE A 488	35.554	87.302	7.040	1.00	46.24	O
ATOM	3679	N	PRO A 489	34.947	88.278	5.395	1.00	46.81	N
ATOM	3680	CA	PRO A 489	35.227	87.102	4.570	1.00	48.03	C
ATOM	3681	CB	PRO A 489	34.877	87.610	3.202	1.00	49.28	C
ATOM	3682	CG	PRO A 489	33.893	88.553	3.469	1.00	48.88	C
ATOM	3683	CD	PRO A 489	34.534	89.363	4.567	1.00	45.18	C
ATOM	3684	C	PRO A 489	36.558	86.510	4.542	1.00	46.48	C
ATOM	3685	O	PRO A 489	37.352	87.296	4.392	1.00	51.27	O
ATOM	3686	N	VAL A 490	36.796	85.229	4.665	1.00	44.10	N
ATOM	3687	CA	VAL A 490	38.129	84.776	4.765	1.00	43.86	C
ATOM	3688	CB	VAL A 490	38.239	83.387	4.846	1.00	42.19	C
ATOM	3689	CG1	VAL A 490	37.456	82.884	5.885	1.00	46.14	C
ATOM	3690	CG2	VAL A 490	37.875	82.742	3.552	1.00	38.91	C
ATOM	3691	C	VAL A 490	38.897	85.212	3.497	1.00	49.07	C
ATOM	3692	O	VAL A 490	38.121	85.135	2.464	1.00	51.79	O
ATOM	3693	OXT	VAL A 490	40.218	85.625	3.547	1.00	52.50	O
TER	3693		VAL A 490						
ATOM	3694	N	PRO B 30	75.460	14.590	57.916	1.00	47.87	N
ATOM	3695	CA	PRO B 30	76.929	14.360	57.891	1.00	47.01	C
ATOM	3696	CB	PRO B 30	77.327	14.523	56.382	1.00	43.01	C
ATOM	3697	CG	PRO B 30	76.388	14.225	55.676	1.00	38.23	C
ATOM	3698	CD	PRO B 30	75.192	14.815	56.456	1.00	49.58	C
ATOM	3699	C	PRO B 30	77.480	15.417	58.674	1.00	47.20	C
ATOM	3700	O	PRO B 30	76.799	16.433	58.664	1.00	52.27	O
ATOM	3701	N	PRO B 31	78.595	15.169	59.347	1.00	45.37	N
ATOM	3702	CA	PRO B 31	79.227	16.042	60.327	1.00	45.46	C
ATOM	3703	CB	PRO B 31	80.424	15.199	60.840	1.00	46.70	C
ATOM	3704	CG	PRO B 31	80.788	14.463	59.787	1.00	45.80	C
ATOM	3705	CD	PRO B 31	79.318	13.915	59.199	1.00	43.31	C
ATOM	3706	C	PRO B 31	79.704	17.151	59.570	1.00	46.58	C
ATOM	3707	O	PRO B 31	79.279	17.132	58.420	1.00	49.70	O
ATOM	3708	N	GLY B 32	80.545	18.063	60.072	1.00	48.88	N
ATOM	3709	CA	GLY B 32	81.018	19.382	59.467	1.00	47.50	C
ATOM	3710	C	GLY B 32	81.105	20.672	60.389	1.00	47.24	C
ATOM	3711	O	GLY B 32	80.324	20.945	61.361	1.00	50.47	O
ATOM	3712	N	PRO B 33	81.927	21.572	60.059	1.00	47.16	N
ATOM	3713	CA	PRO B 33	82.044	22.732	60.890	1.00	49.44	C
ATOM	3714	CB	PRO B 33	83.225	23.464	60.305	1.00	43.82	C
ATOM	3715	CG	PRO B 33	83.151	23.194	59.109	1.00	47.96	C
ATOM	3716	CD	PRO B 33	82.294	21.913	58.759	1.00	46.95	C
ATOM	3717	C	PRO B 33	80.752	23.562	60.892	1.00	49.47	C
ATOM	3718	O	PRO B 33	80.046	23.707	60.034	1.00	52.07	O
ATOM	3719	N	THR B 34	80.551	24.124	62.024	1.00	53.41	N
ATOM	3720	CA	THR B 34	79.333	24.896	62.518	1.00	52.42	C
ATOM	3721	CB	THR B 34	79.416	24.995	64.053	1.00	52.04	C

Figure 2

ATOM	3722	OG1	THR	B	34	78.768	23.811	64.549	1.00	56.81	O
ATOM	3723	CG2	THR	B	34	78.620	26.165	64.520	1.00	55.08	C
ATOM	3724	C	THR	B	34	79.437	26.173	61.989	1.00	48.18	C
ATOM	3725	O	THR	B	34	80.497	26.794	62.140	1.00	51.43	O
ATOM	3726	N	PRO	B	35	78.434	26.522	61.323	1.00	48.04	N
ATOM	3727	CA	PRO	B	35	78.368	27.773	60.659	1.00	50.19	C
ATOM	3728	CB	PRO	B	35	77.494	27.372	59.421	1.00	49.74	C
ATOM	3729	CG	PRO	B	35	76.377	26.608	60.042	1.00	46.21	C
ATOM	3730	CD	PRO	B	35	77.214	25.709	61.037	1.00	49.26	C
ATOM	3731	C	PRO	B	35	77.754	28.925	61.434	1.00	51.13	C
ATOM	3732	O	PRO	B	35	76.741	28.736	61.949	1.00	49.60	O
ATOM	3733	N	LEU	B	36	78.387	30.123	61.354	1.00	55.78	N
ATOM	3734	CA	LEU	B	36	77.991	31.384	61.949	1.00	55.53	C
ATOM	3735	CB	LEU	B	36	79.112	32.382	61.683	1.00	55.47	C
ATOM	3736	CG	LEU	B	36	80.310	32.127	62.704	1.00	55.23	C
ATOM	3737	CD1	LEU	B	36	81.507	33.084	62.386	1.00	56.19	C
ATOM	3738	CD2	LEU	B	36	79.879	32.261	64.127	1.00	53.55	C
ATOM	3739	C	LEU	B	36	76.667	31.878	61.391	1.00	58.59	C
ATOM	3740	O	LEU	B	36	76.245	31.385	60.379	1.00	61.62	O
ATOM	3741	N	PRO	B	37	75.988	32.842	62.015	1.00	59.76	N
ATOM	3742	CA	PRO	B	37	74.657	33.291	61.649	1.00	59.86	C
ATOM	3743	CB	PRO	B	37	74.473	34.657	62.482	1.00	62.07	C
ATOM	3744	CG	PRO	B	37	75.201	34.567	63.746	1.00	61.92	C
ATOM	3745	CD	PRO	B	37	76.442	33.642	63.167	1.00	62.84	C
ATOM	3746	C	PRO	B	37	74.451	33.486	60.160	1.00	58.63	C
ATOM	3747	O	PRO	B	37	73.630	32.803	59.642	1.00	62.43	O
ATOM	3748	N	VAL	B	38	75.105	34.317	59.410	1.00	57.44	N
ATOM	3749	CA	VAL	B	38	74.702	34.279	58.009	1.00	57.89	C
ATOM	3750	CB	VAL	B	38	73.968	35.544	57.709	1.00	61.91	C
ATOM	3751	CG1	VAL	B	38	75.031	36.639	57.591	1.00	66.21	C
ATOM	3752	CG2	VAL	B	38	73.115	35.505	56.283	1.00	62.10	C
ATOM	3753	C	VAL	B	38	75.836	34.119	56.966	1.00	54.66	C
ATOM	3754	O	VAL	B	38	75.609	33.860	55.802	1.00	53.83	O
ATOM	3755	N	ILE	B	39	77.033	34.222	57.425	1.00	51.49	N
ATOM	3756	CA	ILE	B	39	78.167	34.045	56.704	1.00	50.41	C
ATOM	3757	CB	ILE	B	39	79.271	34.722	57.429	1.00	51.80	C
ATOM	3758	CG1	ILE	B	39	79.210	34.444	58.869	1.00	50.36	C
ATOM	3759	CD1	ILE	B	39	80.483	34.951	59.504	1.00	56.12	C
ATOM	3760	CG2	ILE	B	39	79.203	36.167	57.266	1.00	56.29	C
ATOM	3761	C	ILE	B	39	78.582	32.550	56.713	1.00	50.48	C
ATOM	3762	O	ILE	B	39	79.809	32.239	56.436	1.00	48.59	O
ATOM	3763	N	GLY	B	40	77.708	31.690	57.177	1.00	48.88	N
ATOM	3764	CA	GLY	B	40	77.949	30.247	57.144	1.00	46.48	C
ATOM	3765	C	GLY	B	40	79.360	29.921	57.438	1.00	45.30	C
ATOM	3766	O	GLY	B	40	79.922	30.325	58.461	1.00	49.05	O
ATOM	3767	N	ASN	B	41	80.005	29.130	56.554	1.00	45.65	N
ATOM	3768	CA	ASN	B	41	81.456	28.743	56.809	1.00	41.81	C
ATOM	3769	CB	ASN	B	41	81.642	27.272	56.504	1.00	41.59	C
ATOM	3770	CG	ASN	B	41	80.860	26.335	57.420	1.00	41.89	C
ATOM	3771	OD1	ASN	B	41	81.099	26.171	58.803	1.00	42.00	O
ATOM	3772	ND2	ASN	B	41	79.985	25.623	56.740	1.00	35.61	N
ATOM	3773	C	ASN	B	41	82.527	29.464	56.148	1.00	40.25	C
ATOM	3774	O	ASN	B	41	83.646	29.064	56.069	1.00	36.02	O
ATOM	3775	N	ILE	B	42	82.088	30.513	55.593	1.00	41.78	N
ATOM	3776	CA	ILE	B	42	83.005	31.398	54.914	1.00	42.42	C
ATOM	3777	CB	ILE	B	42	82.316	32.631	54.437	1.00	39.88	C
ATOM	3778	CG1	ILE	B	42	82.974	33.140	53.193	1.00	42.40	C
ATOM	3779	CD1	ILE	B	42	82.187	34.552	52.621	1.00	39.13	C
ATOM	3780	CG2	ILE	B	42	82.430	33.676	55.482	1.00	46.41	C
ATOM	3781	C	ILE	B	42	84.224	31.697	55.769	1.00	44.12	C
ATOM	3782	O	ILE	B	42	85.292	31.819	55.178	1.00	49.96	O
ATOM	3783	N	LEU	B	43	84.106	31.767	57.111	1.00	47.72	N
ATOM	3784	CA	LEU	B	43	85.295	32.008	57.965	1.00	49.17	C
ATOM	3785	CB	LEU	B	43	84.916	32.167	59.335	1.00	45.58	C
ATOM	3786	CG	LEU	B	43	84.890	33.658	59.677	1.00	51.72	C
ATOM	3787	CD1	LEU	B	43	85.418	34.598	58.662	1.00	52.62	C
ATOM	3788	CD2	LEU	B	43	83.400	34.121	60.056	1.00	57.54	C
ATOM	3789	C	LEU	B	43	86.404	30.791	57.799	1.00	52.26	C
ATOM	3790	O	LEU	B	43	87.574	30.971	57.788	1.00	49.28	O
ATOM	3791	N	GLN	B	44	85.930	29.608	57.628	1.00	52.83	N
ATOM	3792	CA	GLN	B	44	86.721	28.435	57.409	1.00	55.18	C
ATOM	3793	CB	GLN	B	44	85.886	27.168	57.784	1.00	55.78	C
ATOM	3794	CG	GLN	B	44	85.053	27.384	59.086	1.00	69.38	C
ATOM	3795	CD	GLN	B	44	85.455	26.262	60.026	1.00	82.69	C
ATOM	3796	OE1	GLN	B	44	85.166	25.089	59.714	1.00	83.85	O
ATOM	3797	NE2	GLN	B	44	86.154	26.593	61.181	1.00	87.73	N

148/514

Figure 2

ATOM	3798	C	GLN	B	44	87.070	28.311	55.915	1.00	53.63	C
ATOM	3799	O	GLN	B	44	88.209	28.598	55.561	1.00	59.45	O
ATOM	3800	N	ILE	B	45	86.182	27.809	55.028	1.00	49.74	N
ATOM	3801	CA	ILE	B	45	86.546	27.814	53.583	1.00	50.28	C
ATOM	3802	CB	ILE	B	45	85.530	27.370	52.643	1.00	49.01	C
ATOM	3803	CG1	ILE	B	45	84.635	28.425	52.470	1.00	44.65	C
ATOM	3804	CD1	ILE	B	45	83.234	27.856	52.142	1.00	57.47	C
ATOM	3805	CG2	ILE	B	45	84.790	26.110	53.277	1.00	56.74	C
ATOM	3806	C	ILE	B	45	87.166	28.948	52.932	1.00	50.12	C
ATOM	3807	O	ILE	B	45	88.099	28.885	52.204	1.00	49.60	O
ATOM	3808	N	GLY	B	46	86.687	30.062	53.173	1.00	51.16	N
ATOM	3809	CA	GLY	B	46	87.303	31.181	52.465	1.00	50.62	C
ATOM	3810	C	GLY	B	46	86.670	31.477	51.159	1.00	51.58	C
ATOM	3811	O	GLY	B	46	85.553	30.991	50.886	1.00	52.19	O
ATOM	3812	N	ILE	B	47	87.368	32.181	50.247	1.00	54.80	N
ATOM	3813	CA	ILE	B	47	86.796	32.683	48.948	1.00	53.32	C
ATOM	3814	CB	ILE	B	47	86.409	33.892	49.268	1.00	52.70	C
ATOM	3815	CG1	ILE	B	47	85.788	34.556	48.105	1.00	60.12	C
ATOM	3816	CD1	ILE	B	47	85.835	36.285	48.198	1.00	56.67	C
ATOM	3817	CG2	ILE	B	47	87.672	34.633	49.689	1.00	58.72	C
ATOM	3818	C	ILE	B	47	87.889	32.702	47.829	1.00	55.60	C
ATOM	3819	O	ILE	B	47	87.581	32.738	46.684	1.00	58.35	O
ATOM	3820	N	LYS	B	48	89.167	32.871	48.028	1.00	58.03	N
ATOM	3821	CA	LYS	B	48	90.299	32.266	47.233	1.00	62.16	C
ATOM	3822	CB	LYS	B	48	91.660	32.659	47.867	1.00	63.34	C
ATOM	3823	CG	LYS	B	48	91.819	32.315	49.464	1.00	69.55	C
ATOM	3824	CD	LYS	B	48	92.833	33.510	50.251	1.00	76.10	C
ATOM	3825	CE	LYS	B	48	93.195	33.292	51.837	1.00	76.43	C
ATOM	3826	NZ	LYS	B	48	92.125	33.102	52.868	1.00	72.87	N
ATOM	3827	C	LYS	B	48	90.338	30.643	46.928	1.00	62.36	C
ATOM	3828	O	LYS	B	48	89.557	30.288	46.100	1.00	64.15	O
ATOM	3829	N	ASP	B	49	91.170	29.686	47.466	1.00	60.80	N
ATOM	3830	CA	ASP	B	49	91.297	28.213	47.081	1.00	61.80	C
ATOM	3831	CB	ASP	B	49	92.793	27.585	47.361	1.00	65.85	C
ATOM	3832	CG	ASP	B	49	93.242	26.151	46.439	1.00	72.42	C
ATOM	3833	OD1	ASP	B	49	94.485	25.822	46.409	1.00	76.34	O
ATOM	3834	OD2	ASP	B	49	92.502	25.335	45.733	1.00	76.40	O
ATOM	3835	C	ASP	B	49	90.406	27.343	47.922	1.00	59.82	C
ATOM	3836	O	ASP	B	49	90.935	26.471	48.714	1.00	58.08	O
ATOM	3837	N	ILE	B	50	89.081	27.543	47.765	1.00	57.61	N
ATOM	3838	CA	ILE	B	50	88.149	26.755	48.565	1.00	57.92	C
ATOM	3839	CB	ILE	B	50	86.712	26.987	48.267	1.00	56.50	C
ATOM	3840	CG1	ILE	B	50	86.417	26.121	47.186	1.00	61.51	C
ATOM	3841	CD1	ILE	B	50	85.496	25.153	47.559	1.00	66.31	C
ATOM	3842	CG2	ILE	B	50	86.388	28.548	47.864	1.00	57.40	C
ATOM	3843	C	ILE	B	50	88.539	25.265	48.535	1.00	57.20	C
ATOM	3844	O	ILE	B	50	88.413	24.508	49.500	1.00	58.03	O
ATOM	3845	N	SER	B	51	89.111	24.881	47.473	1.00	55.88	N
ATOM	3846	CA	SER	B	51	89.627	23.565	47.382	1.00	58.09	C
ATOM	3847	CB	SER	B	51	90.247	23.324	45.910	1.00	61.88	C
ATOM	3848	OG	SER	B	51	90.461	24.494	45.034	1.00	63.39	O
ATOM	3849	C	SER	B	51	90.709	23.167	48.373	1.00	56.68	C
ATOM	3850	O	SER	B	51	90.863	22.018	48.932	1.00	48.94	O
ATOM	3851	N	LYS	B	52	91.529	24.139	48.610	1.00	59.10	N
ATOM	3852	CA	LYS	B	52	92.580	23.789	49.603	1.00	62.20	C
ATOM	3853	CB	LYS	B	52	93.651	24.785	49.584	1.00	65.28	C
ATOM	3854	CG	LYS	B	52	95.018	24.072	49.203	1.00	75.75	C
ATOM	3855	CD	LYS	B	52	94.954	23.235	47.743	1.00	78.84	C
ATOM	3856	CE	LYS	B	52	96.172	22.348	47.450	1.00	81.22	C
ATOM	3857	NZ	LYS	B	52	96.121	21.688	45.992	1.00	79.38	N
ATOM	3858	C	LYS	B	52	92.095	23.640	51.045	1.00	59.66	C
ATOM	3859	O	LYS	B	52	92.598	22.807	51.803	1.00	65.69	O
ATOM	3860	N	SER	B	53	91.066	24.337	51.424	1.00	52.49	N
ATOM	3861	CA	SER	B	53	90.559	24.114	52.674	1.00	48.56	C
ATOM	3862	CB	SER	B	53	89.794	25.424	53.180	1.00	47.78	C
ATOM	3863	OG	SER	B	53	89.039	25.863	52.191	1.00	49.78	O
ATOM	3864	C	SER	B	53	89.716	22.858	52.779	1.00	49.78	C
ATOM	3865	O	SER	B	53	89.401	22.415	53.916	1.00	52.66	O
ATOM	3866	N	LEU	B	54	89.196	22.297	51.668	1.00	48.80	N
ATOM	3867	CA	LEU	B	54	88.329	21.125	51.674	1.00	44.30	C
ATOM	3868	CB	LEU	B	54	87.889	20.915	50.270	1.00	40.93	C
ATOM	3869	CG	LEU	B	54	86.790	21.748	50.005	1.00	44.27	C
ATOM	3870	CD1	LEU	B	54	86.275	21.425	48.600	1.00	47.53	C
ATOM	3871	CD2	LEU	B	54	85.755	21.621	50.842	1.00	40.38	C
ATOM	3872	C	LEU	B	54	89.334	19.929	51.992	1.00	44.15	C
ATOM	3873	O	LEU	B	54	89.103	18.956	52.781	1.00	44.48	O

Figure 2

ATOM	3874	N	THR	B	55	90.469	19.918	51.431	1.00	40.93	N
ATOM	3875	CA	THR	B	55	91.183	18.750	51.857	1.00	42.90	C
ATOM	3876	CB	THR	B	55	92.380	18.600	51.029	1.00	43.63	C
ATOM	3877	OG1	THR	B	55	92.008	17.883	49.841	1.00	51.83	O
ATOM	3878	CG2	THR	B	55	93.446	17.780	51.668	1.00	37.65	C
ATOM	3879	C	THR	B	55	91.631	18.926	53.355	1.00	45.05	C
ATOM	3880	O	THR	B	55	91.667	18.109	54.073	1.00	45.08	O
ATOM	3881	N	ASN	B	56	91.881	20.072	53.870	1.00	46.03	N
ATOM	3882	CA	ASN	B	56	92.115	20.257	55.324	1.00	40.78	C
ATOM	3883	CB	ASN	B	56	92.508	21.677	55.669	1.00	38.86	C
ATOM	3884	CG	ASN	B	56	93.960	21.884	55.404	1.00	42.30	C
ATOM	3885	OD1	ASN	B	56	94.608	20.984	55.083	1.00	44.35	O
ATOM	3886	ND2	ASN	B	56	94.457	23.001	55.510	1.00	48.99	N
ATOM	3887	C	ASN	B	56	90.867	19.881	56.116	1.00	39.76	C
ATOM	3888	O	ASN	B	56	90.896	19.084	57.033	1.00	44.25	O
ATOM	3889	N	LEU	B	57	89.751	20.280	55.767	1.00	35.94	N
ATOM	3890	CA	LEU	B	57	88.616	19.826	56.471	1.00	37.33	C
ATOM	3891	CB	LEU	B	57	87.373	20.463	55.912	1.00	38.93	C
ATOM	3892	CG	LEU	B	57	87.248	22.021	56.175	1.00	37.93	C
ATOM	3893	CD1	LEU	B	57	86.255	22.806	55.418	1.00	45.07	C
ATOM	3894	CD2	LEU	B	57	86.959	22.243	57.598	1.00	45.72	C
ATOM	3895	C	LEU	B	57	88.520	18.324	56.455	1.00	41.03	C
ATOM	3896	O	LEU	B	57	88.197	17.655	57.347	1.00	42.27	O
ATOM	3897	N	SER	B	58	88.852	17.691	55.400	1.00	45.83	N
ATOM	3898	CA	SER	B	58	88.683	16.169	55.408	1.00	44.45	C
ATOM	3899	CB	SER	B	58	88.943	15.544	54.017	1.00	43.28	C
ATOM	3900	OG	SER	B	58	90.289	15.430	53.772	1.00	39.14	O
ATOM	3901	C	SER	B	58	89.382	15.475	56.511	1.00	41.63	C
ATOM	3902	O	SER	B	58	88.902	14.473	57.023	1.00	42.39	O
ATOM	3903	N	LYS	B	59	90.464	16.000	56.859	1.00	38.60	N
ATOM	3904	CA	LYS	B	59	91.345	15.428	57.802	1.00	39.43	C
ATOM	3905	CB	LYS	B	59	92.649	16.281	57.715	1.00	40.24	C
ATOM	3906	CG	LYS	B	59	93.801	15.694	57.126	1.00	40.57	C
ATOM	3907	CD	LYS	B	59	93.704	15.192	55.618	1.00	50.86	C
ATOM	3908	CE	LYS	B	59	95.121	14.715	55.098	1.00	45.03	C
ATOM	3909	NZ	LYS	B	59	96.231	15.644	55.969	1.00	55.12	N
ATOM	3910	C	LYS	B	59	90.754	15.573	59.267	1.00	43.28	C
ATOM	3911	O	LYS	B	59	91.330	15.013	60.252	1.00	44.59	O
ATOM	3912	N	VAL	B	60	89.601	16.260	59.396	1.00	40.60	N
ATOM	3913	CA	VAL	B	60	88.881	16.275	60.544	1.00	35.94	C
ATOM	3914	CB	VAL	B	60	88.969	17.636	61.228	1.00	38.05	C
ATOM	3915	CG1	VAL	B	60	89.754	18.580	60.457	1.00	39.64	C
ATOM	3916	CG2	VAL	B	60	87.577	18.279	61.795	1.00	36.57	C
ATOM	3917	C	VAL	B	60	87.530	15.962	60.295	1.00	35.88	C
ATOM	3918	O	VAL	B	60	86.855	15.589	61.181	1.00	39.18	O
ATOM	3919	N	TYR	B	61	86.936	16.031	59.211	1.00	33.47	N
ATOM	3920	CA	TYR	B	61	85.571	15.567	59.473	1.00	36.43	C
ATOM	3921	CB	TYR	B	61	84.521	16.523	59.060	1.00	38.62	C
ATOM	3922	CG	TYR	B	61	84.534	17.812	59.946	1.00	47.68	C
ATOM	3923	CD1	TYR	B	61	83.652	17.915	61.040	1.00	49.23	C
ATOM	3924	CE1	TYR	B	61	83.634	19.035	61.793	1.00	46.91	C
ATOM	3925	CZ	TYR	B	61	84.498	19.994	61.529	1.00	50.01	C
ATOM	3926	OH	TYR	B	61	84.547	21.095	62.364	1.00	52.78	O
ATOM	3927	CE2	TYR	B	61	85.395	19.882	60.457	1.00	48.76	C
ATOM	3928	CD2	TYR	B	61	85.393	18.874	59.696	1.00	43.55	C
ATOM	3929	C	TYR	B	61	85.313	14.262	58.750	1.00	39.55	C
ATOM	3930	O	TYR	B	61	84.128	13.709	58.737	1.00	38.50	O
ATOM	3931	N	GLY	B	62	86.360	13.705	58.047	1.00	37.79	N
ATOM	3932	CA	GLY	B	62	85.973	12.466	57.386	1.00	38.02	C
ATOM	3933	C	GLY	B	62	85.949	12.748	55.929	1.00	39.51	C
ATOM	3934	O	GLY	B	62	86.387	13.736	55.456	1.00	43.56	O
ATOM	3935	N	PRO	B	63	85.590	11.721	55.200	1.00	38.18	N
ATOM	3936	CA	PRO	B	63	85.497	11.820	53.759	1.00	35.21	C
ATOM	3937	CB	PRO	B	63	85.685	10.344	53.360	1.00	36.82	C
ATOM	3938	CG	PRO	B	63	84.943	9.620	54.377	1.00	30.94	C
ATOM	3939	CD	PRO	B	63	85.149	10.438	55.709	1.00	33.62	C
ATOM	3940	C	PRO	B	63	84.194	12.200	53.416	1.00	36.00	C
ATOM	3941	O	PRO	B	63	84.069	12.455	52.298	1.00	43.66	O
ATOM	3942	N	VAL	B	64	83.227	12.232	54.353	1.00	36.67	N
ATOM	3943	CA	VAL	B	64	81.959	12.682	53.798	1.00	34.63	C
ATOM	3944	CB	VAL	B	64	80.980	11.793	53.797	1.00	36.01	C
ATOM	3945	CG1	VAL	B	64	79.601	12.246	53.348	1.00	31.28	C
ATOM	3946	CG2	VAL	B	64	81.357	10.677	52.921	1.00	45.46	C
ATOM	3947	C	VAL	B	64	81.393	13.827	54.602	1.00	38.95	C
ATOM	3948	O	VAL	B	64	80.452	13.577	55.344	1.00	35.41	O
ATOM	3949	N	PHE	B	65	81.922	15.061	54.476	1.00	40.28	N

150/514

Figure 2

ATOM	3950	CA	PHE	B	65	81.363	16.183	55.291	1.00	42.07	C
ATOM	3951	CB	PHE	B	65	82.433	17.073	55.845	1.00	43.43	C
ATOM	3952	CG	PHE	B	65	83.476	17.518	54.991	1.00	38.81	C
ATOM	3953	CD1	PHE	B	65	84.623	16.849	54.727	1.00	41.45	C
ATOM	3954	CE1	PHE	B	65	85.637	17.406	53.912	1.00	40.35	C
ATOM	3955	CZ	PHE	B	65	85.424	18.756	53.430	1.00	41.42	C
ATOM	3956	CE2	PHE	B	65	84.332	19.336	53.759	1.00	35.41	C
ATOM	3957	CD2	PHE	B	65	83.356	18.682	54.557	1.00	44.67	C
ATOM	3958	C	PHE	B	65	80.381	17.278	54.830	1.00	43.99	C
ATOM	3959	O	PHE	B	65	80.131	17.355	53.648	1.00	47.32	O
ATOM	3960	N	THR	B	66	79.872	18.094	55.775	1.00	44.55	N
ATOM	3961	CA	THR	B	66	78.993	19.211	55.443	1.00	45.85	C
ATOM	3962	CB	THR	B	66	77.785	19.223	56.192	1.00	47.71	C
ATOM	3963	OG1	THR	B	66	76.924	18.011	55.885	1.00	51.79	O
ATOM	3964	CG2	THR	B	66	76.887	20.446	55.742	1.00	45.43	C
ATOM	3965	C	THR	B	66	79.548	20.571	55.590	1.00	47.13	C
ATOM	3966	O	THR	B	66	80.205	20.973	56.622	1.00	50.00	O
ATOM	3967	N	LEU	B	67	79.339	21.345	54.516	1.00	47.52	N
ATOM	3968	CA	LEU	B	67	79.796	22.770	54.431	1.00	46.96	C
ATOM	3969	CB	LEU	B	67	80.816	22.932	53.330	1.00	47.17	C
ATOM	3970	CG	LEU	B	67	82.092	23.617	53.773	1.00	53.14	C
ATOM	3971	CD1	LEU	B	67	82.572	22.873	55.025	1.00	62.54	C
ATOM	3972	CD2	LEU	B	67	83.122	23.461	52.621	1.00	54.61	C
ATOM	3973	C	LEU	B	67	78.595	23.671	54.165	1.00	47.39	C
ATOM	3974	O	LEU	B	67	77.603	23.338	53.573	1.00	47.16	O
ATOM	3975	N	TYR	B	68	78.836	24.954	54.587	1.00	50.90	N
ATOM	3976	CA	TYR	B	68	77.908	26.153	54.419	1.00	49.69	C
ATOM	3977	CB	TYR	B	68	77.298	26.719	55.749	1.00	51.66	C
ATOM	3978	CG	TYR	B	68	76.208	25.730	56.307	1.00	52.44	C
ATOM	3979	CD1	TYR	B	68	76.528	24.734	57.236	1.00	46.82	C
ATOM	3980	CE1	TYR	B	68	75.484	23.868	57.686	1.00	50.89	C
ATOM	3981	CZ	TYR	B	68	74.196	24.015	57.168	1.00	49.11	C
ATOM	3982	OH	TYR	B	68	73.225	23.203	57.508	1.00	55.73	O
ATOM	3983	CE2	TYR	B	68	73.876	24.933	56.313	1.00	44.01	C
ATOM	3984	CD2	TYR	B	68	74.859	25.804	55.858	1.00	51.16	C
ATOM	3985	C	TYR	B	68	78.256	27.219	53.523	1.00	48.45	C
ATOM	3986	O	TYR	B	68	79.265	27.946	53.737	1.00	47.21	O
ATOM	3987	N	PHE	B	69	77.442	27.402	52.497	1.00	48.74	N
ATOM	3988	CA	PHE	B	69	77.650	28.560	51.627	1.00	48.54	C
ATOM	3989	CB	PHE	B	69	77.664	28.157	50.187	1.00	52.72	C
ATOM	3990	CG	PHE	B	69	79.013	27.610	49.752	1.00	57.93	C
ATOM	3991	CD1	PHE	B	69	80.075	28.373	49.739	1.00	65.11	C
ATOM	3992	CE1	PHE	B	69	81.226	27.924	49.393	1.00	69.09	C
ATOM	3993	CZ	PHE	B	69	81.372	26.649	49.082	1.00	72.14	C
ATOM	3994	CE2	PHE	B	69	80.377	25.845	49.102	1.00	74.75	C
ATOM	3995	CD2	PHE	B	69	79.153	26.338	49.436	1.00	71.47	C
ATOM	3996	C	PHE	B	69	76.451	29.324	51.973	1.00	48.77	C
ATOM	3997	O	PHE	B	69	75.300	29.153	51.507	1.00	46.72	O
ATOM	3998	N	GLY	B	70	76.648	30.151	52.934	1.00	50.47	N
ATOM	3999	CA	GLY	B	70	75.456	30.764	53.415	1.00	48.11	C
ATOM	4000	C	GLY	B	70	74.631	30.028	54.207	1.00	45.52	C
ATOM	4001	O	GLY	B	70	75.101	29.591	55.180	1.00	52.23	O
ATOM	4002	N	LEU	B	71	73.427	29.917	53.725	1.00	46.50	N
ATOM	4003	CA	LEU	B	71	72.422	29.084	54.330	1.00	48.93	C
ATOM	4004	CB	LEU	B	71	71.096	29.852	54.360	1.00	50.86	C
ATOM	4005	CG	LEU	B	71	71.173	31.344	54.921	1.00	45.64	C
ATOM	4006	CD1	LEU	B	71	69.740	31.839	54.693	1.00	44.88	C
ATOM	4007	CD2	LEU	B	71	71.474	31.176	56.341	1.00	40.29	C
ATOM	4008	C	LEU	B	71	72.333	27.873	53.421	1.00	52.88	C
ATOM	4009	O	LEU	B	71	71.421	26.958	53.609	1.00	55.93	O
ATOM	4010	N	LYS	B	72	73.219	27.770	52.421	1.00	54.18	N
ATOM	4011	CA	LYS	B	72	73.161	26.654	51.562	1.00	52.79	C
ATOM	4012	CB	LYS	B	72	73.585	27.082	50.222	1.00	55.31	C
ATOM	4013	CG	LYS	B	72	73.091	26.064	49.038	1.00	56.33	C
ATOM	4014	CD	LYS	B	72	72.808	26.752	47.725	1.00	57.50	C
ATOM	4015	CE	LYS	B	72	73.212	25.861	46.451	1.00	61.21	C
ATOM	4016	NZ	LYS	B	72	72.334	24.684	46.297	1.00	61.02	N
ATOM	4017	C	LYS	B	72	74.124	25.506	52.168	1.00	54.40	C
ATOM	4018	O	LYS	B	72	75.356	25.622	52.471	1.00	53.49	O
ATOM	4019	N	PRO	B	73	73.452	24.412	52.452	1.00	53.57	N
ATOM	4020	CA	PRO	B	73	74.083	23.189	52.974	1.00	51.65	C
ATOM	4021	CB	PRO	B	73	72.857	22.461	53.567	1.00	50.45	C
ATOM	4022	CG	PRO	B	73	71.793	22.852	52.607	1.00	49.75	C
ATOM	4023	CD	PRO	B	73	71.957	24.325	52.378	1.00	50.95	C
ATOM	4024	C	PRO	B	73	74.610	22.434	51.842	1.00	51.04	C
ATOM	4025	O	PRO	B	73	73.846	22.111	50.894	1.00	54.76	O

Figure 2

ATOM	4026	N	ILE	B	74	75.904	22.114	51.863	1.00	50.60	N
ATOM	4027	CA	ILE	B	74	76.589	21.247	50.785	1.00	47.47	C
ATOM	4028	CB	ILE	B	74	77.445	22.151	50.069	1.00	48.08	C
ATOM	4029	CG1	ILE	B	74	76.765	22.408	48.779	1.00	50.74	C
ATOM	4030	CD1	ILE	B	74	75.700	23.422	48.859	1.00	50.97	C
ATOM	4031	CG2	ILE	B	74	78.853	21.738	49.882	1.00	47.15	C
ATOM	4032	C	ILE	B	74	77.407	20.024	51.356	1.00	46.28	C
ATOM	4033	O	ILE	B	74	78.343	20.169	52.237	1.00	43.38	O
ATOM	4034	N	VAL	B	75	77.087	18.844	50.830	1.00	41.86	N
ATOM	4035	CA	VAL	B	75	77.873	17.670	51.194	1.00	39.51	C
ATOM	4036	CB	VAL	B	75	77.027	16.520	51.075	1.00	40.03	C
ATOM	4037	CG1	VAL	B	75	77.768	15.316	51.216	1.00	42.82	C
ATOM	4038	CG2	VAL	B	75	75.886	16.493	52.029	1.00	37.31	C
ATOM	4039	C	VAL	B	75	79.096	17.574	50.259	1.00	39.20	C
ATOM	4040	O	VAL	B	75	78.964	17.415	49.003	1.00	40.54	O
ATOM	4041	N	VAL	B	76	80.320	17.683	50.752	1.00	37.21	N
ATOM	4042	CA	VAL	B	76	81.532	17.482	49.975	1.00	35.01	C
ATOM	4043	CB	VAL	B	76	82.547	18.268	50.648	1.00	35.30	C
ATOM	4044	CG1	VAL	B	76	83.902	17.997	50.194	1.00	37.98	C
ATOM	4045	CG2	VAL	B	76	82.364	19.637	50.334	1.00	41.62	C
ATOM	4046	C	VAL	B	76	82.007	16.009	50.050	1.00	36.65	C
ATOM	4047	O	VAL	B	76	81.885	15.402	50.997	1.00	41.11	O
ATOM	4048	N	LEU	B	77	82.520	15.362	49.064	1.00	37.55	N
ATOM	4049	CA	LEU	B	77	82.923	13.969	49.199	1.00	35.74	C
ATOM	4050	CB	LEU	B	77	82.353	13.245	48.065	1.00	34.83	C
ATOM	4051	CG	LEU	B	77	80.908	13.216	48.087	1.00	37.80	C
ATOM	4052	CD1	LEU	B	77	80.328	12.264	46.999	1.00	38.00	C
ATOM	4053	CD2	LEU	B	77	80.350	12.603	49.300	1.00	44.07	C
ATOM	4054	C	LEU	B	77	84.483	13.920	48.995	1.00	36.84	C
ATOM	4055	O	LEU	B	77	84.976	14.510	48.078	1.00	37.14	O
ATOM	4056	N	HIS	B	78	85.294	13.291	49.767	1.00	35.03	N
ATOM	4057	CA	HIS	B	78	86.697	13.647	49.574	1.00	35.55	C
ATOM	4058	CB	HIS	B	78	87.246	14.336	50.733	1.00	33.35	C
ATOM	4059	CG	HIS	B	78	88.567	14.845	50.578	1.00	27.76	C
ATOM	4060	ND1	HIS	B	78	89.701	14.142	50.955	1.00	32.81	N
ATOM	4061	CE1	HIS	B	78	90.800	14.877	50.612	1.00	32.53	C
ATOM	4062	NE2	HIS	B	78	90.414	16.044	50.101	1.00	30.69	N
ATOM	4063	CD2	HIS	B	78	89.006	16.058	50.090	1.00	32.13	C
ATOM	4064	C	HIS	B	78	87.532	12.444	49.236	1.00	43.40	C
ATOM	4065	O	HIS	B	78	88.586	12.415	48.406	1.00	44.70	O
ATOM	4066	N	GLY	B	79	87.283	11.282	49.648	1.00	45.37	N
ATOM	4067	CA	GLY	B	79	88.309	10.473	48.785	1.00	43.56	C
ATOM	4068	C	GLY	B	79	88.034	9.679	47.579	1.00	40.33	C
ATOM	4069	O	GLY	B	79	86.836	9.632	47.198	1.00	44.10	O
ATOM	4070	N	TYR	B	80	89.004	8.875	47.080	1.00	36.20	N
ATOM	4071	CA	TYR	B	80	88.729	7.943	45.961	1.00	36.75	C
ATOM	4072	CB	TYR	B	80	90.077	7.105	45.497	1.00	40.08	C
ATOM	4073	CG	TYR	B	80	89.587	6.090	44.540	1.00	43.86	C
ATOM	4074	CD1	TYR	B	80	89.580	6.338	43.176	1.00	50.14	C
ATOM	4075	CE1	TYR	B	80	88.984	5.365	42.114	1.00	35.24	C
ATOM	4076	CZ	TYR	B	80	88.434	4.236	42.571	1.00	36.11	C
ATOM	4077	OH	TYR	B	80	87.919	3.412	41.659	1.00	35.80	O
ATOM	4078	CE2	TYR	B	80	88.406	3.984	43.941	1.00	42.21	C
ATOM	4079	CD2	TYR	B	80	88.962	4.869	44.954	1.00	42.19	C
ATOM	4080	C	TYR	B	80	87.543	7.076	46.254	1.00	37.17	C
ATOM	4081	O	TYR	B	80	86.587	6.938	45.509	1.00	36.00	O
ATOM	4082	N	GLU	B	81	87.553	6.487	47.447	1.00	39.47	N
ATOM	4083	CA	GLU	B	81	86.457	5.585	47.797	1.00	39.48	C
ATOM	4084	CB	GLU	B	81	86.652	4.798	49.051	1.00	40.64	C
ATOM	4085	CG	GLU	B	81	87.626	3.506	49.042	1.00	47.19	C
ATOM	4086	CD	GLU	B	81	87.630	2.525	47.781	1.00	54.30	C
ATOM	4087	OE1	GLU	B	81	88.769	2.258	47.251	1.00	51.61	O
ATOM	4088	OE2	GLU	B	81	86.584	2.077	47.232	1.00	51.95	O
ATOM	4089	C	GLU	B	81	85.231	6.254	47.847	1.00	39.26	C
ATOM	4090	O	GLU	B	81	84.264	5.853	47.232	1.00	39.89	O
ATOM	4091	N	ALA	B	82	85.143	7.335	48.544	1.00	42.44	N
ATOM	4092	CA	ALA	B	82	83.718	8.039	48.600	1.00	40.78	C
ATOM	4093	CB	ALA	B	82	83.804	9.074	49.562	1.00	42.53	C
ATOM	4094	C	ALA	B	82	83.320	8.575	47.199	1.00	40.51	C
ATOM	4095	O	ALA	B	82	82.149	8.340	46.728	1.00	37.56	O
ATOM	4096	N	VAL	B	83	84.315	9.101	46.434	1.00	37.25	N
ATOM	4097	CA	VAL	B	83	83.878	9.572	45.189	1.00	37.81	C
ATOM	4098	CB	VAL	B	83	84.959	10.194	44.418	1.00	38.84	C
ATOM	4099	CG1	VAL	B	83	84.410	10.721	43.127	1.00	39.55	C
ATOM	4100	CG2	VAL	B	83	85.440	11.296	45.049	1.00	38.70	C
ATOM	4101	C	VAL	B	83	83.393	8.494	44.324	1.00	39.26	C

Figure 2

ATOM	4102	O	VAL	B	83	82.414	8.661	43.627	1.00	40.15	O
ATOM	4103	N	LYS	B	84	84.116	7.405	44.345	1.00	39.34	N
ATOM	4104	CA	LYS	B	84	83.741	6.257	43.599	1.00	42.58	C
ATOM	4105	CB	LYS	B	84	84.922	5.275	43.824	1.00	49.58	C
ATOM	4106	CG	LYS	B	84	84.721	3.603	43.793	1.00	51.91	C
ATOM	4107	CD	LYS	B	84	84.286	3.194	42.581	1.00	56.24	C
ATOM	4108	CE	LYS	B	84	84.009	1.686	42.728	1.00	64.34	C
ATOM	4109	NZ	LYS	B	84	83.523	1.284	43.994	1.00	63.77	N
ATOM	4110	C	LYS	B	84	82.437	5.599	44.002	1.00	42.03	C
ATOM	4111	O	LYS	B	84	81.395	5.426	43.307	1.00	45.24	O
ATOM	4112	N	GLU	B	85	82.325	5.412	45.264	1.00	44.21	N
ATOM	4113	CA	GLU	B	85	81.034	4.923	45.744	1.00	43.79	C
ATOM	4114	CB	GLU	B	85	81.070	4.851	47.172	1.00	44.54	C
ATOM	4115	CG	GLU	B	85	79.908	4.056	47.764	1.00	53.29	C
ATOM	4116	CD	GLU	B	85	80.019	3.839	49.265	1.00	61.86	C
ATOM	4117	OE1	GLU	B	85	81.261	3.829	49.771	1.00	56.62	O
ATOM	4118	OE2	GLU	B	85	78.820	3.598	49.821	1.00	67.20	O
ATOM	4119	C	GLU	B	85	79.945	5.777	45.334	1.00	44.00	C
ATOM	4120	O	GLU	B	85	78.864	5.318	45.006	1.00	47.38	O
ATOM	4121	N	ALA	B	86	80.133	7.063	45.352	1.00	43.86	N
ATOM	4122	CA	ALA	B	86	78.943	7.792	44.987	1.00	44.20	C
ATOM	4123	CB	ALA	B	86	78.958	9.097	45.643	1.00	47.67	C
ATOM	4124	C	ALA	B	86	78.809	7.992	43.493	1.00	42.08	C
ATOM	4125	O	ALA	B	86	77.770	7.928	42.983	1.00	41.13	O
ATOM	4126	N	LEU	B	87	79.856	8.281	42.790	1.00	41.50	N
ATOM	4127	CA	LEU	B	87	79.692	8.580	41.367	1.00	40.26	C
ATOM	4128	CB	LEU	B	87	80.860	9.337	40.897	1.00	37.89	C
ATOM	4129	CG	LEU	B	87	80.810	10.929	40.691	1.00	41.30	C
ATOM	4130	CD1	LEU	B	87	79.513	11.462	41.166	1.00	38.57	C
ATOM	4131	CD2	LEU	B	87	81.981	11.656	41.212	1.00	34.81	C
ATOM	4132	C	LEU	B	87	79.426	7.229	40.569	1.00	40.45	C
ATOM	4133	O	LEU	B	87	78.806	7.169	39.576	1.00	41.81	O
ATOM	4134	N	ILE	B	88	79.921	6.114	41.006	1.00	40.77	N
ATOM	4135	CA	ILE	B	88	79.656	4.957	40.301	1.00	39.45	C
ATOM	4136	CB	ILE	B	88	80.973	4.328	40.101	1.00	37.15	C
ATOM	4137	CG1	ILE	B	88	81.657	4.915	38.771	1.00	36.40	C
ATOM	4138	CD1	ILE	B	88	83.021	5.446	39.161	1.00	40.23	C
ATOM	4139	CG2	ILE	B	88	80.671	3.013	39.576	1.00	41.44	C
ATOM	4140	C	ILE	B	88	78.535	4.038	40.935	1.00	45.09	C
ATOM	4141	O	ILE	B	88	77.434	3.923	40.448	1.00	44.10	O
ATOM	4142	N	ASP	B	89	78.815	3.427	42.105	1.00	49.64	N
ATOM	4143	CA	ASP	B	89	77.828	2.634	42.808	1.00	49.52	C
ATOM	4144	CB	ASP	B	89	78.321	2.201	44.166	1.00	51.28	C
ATOM	4145	CG	ASP	B	89	79.740	1.518	44.127	1.00	57.57	C
ATOM	4146	OD1	ASP	B	89	80.360	1.241	45.287	1.00	62.05	O
ATOM	4147	OD2	ASP	B	89	80.379	1.310	43.034	1.00	55.76	O
ATOM	4148	C	ASP	B	89	76.585	3.318	43.042	1.00	49.71	C
ATOM	4149	O	ASP	B	89	75.522	2.673	42.881	1.00	53.34	O
ATOM	4150	N	LEU	B	90	76.579	4.560	43.417	1.00	47.74	N
ATOM	4151	CA	LEU	B	90	75.249	5.225	43.483	1.00	51.45	C
ATOM	4152	CB	LEU	B	90	75.161	6.073	44.685	1.00	54.44	C
ATOM	4153	CG	LEU	B	90	74.655	5.285	45.959	1.00	58.75	C
ATOM	4154	CD1	LEU	B	90	73.696	4.231	45.485	1.00	60.41	C
ATOM	4155	CD2	LEU	B	90	75.797	4.691	46.622	1.00	59.60	C
ATOM	4156	C	LEU	B	90	75.051	6.151	42.294	1.00	51.45	C
ATOM	4157	O	LEU	B	90	74.377	7.170	42.303	1.00	50.41	O
ATOM	4158	N	GLY	B	91	75.646	5.787	41.193	1.00	51.38	N
ATOM	4159	CA	GLY	B	91	75.505	6.632	40.000	1.00	50.56	C
ATOM	4160	C	GLY	B	91	74.257	7.356	39.697	1.00	49.29	C
ATOM	4161	O	GLY	B	91	74.171	8.539	39.516	1.00	51.57	O
ATOM	4162	N	GLU	B	92	73.206	6.641	39.597	1.00	50.80	N
ATOM	4163	CA	GLU	B	92	71.963	7.320	39.262	1.00	53.49	C
ATOM	4164	CB	GLU	B	92	70.802	6.388	39.083	1.00	54.17	C
ATOM	4165	CG	GLU	B	92	70.442	6.122	37.646	1.00	62.22	C
ATOM	4166	CD	GLU	B	92	69.789	7.306	37.082	1.00	65.94	C
ATOM	4167	OE1	GLU	B	92	68.868	7.747	37.734	1.00	61.51	O
ATOM	4168	OE2	GLU	B	92	70.239	7.820	36.044	1.00	76.24	O
ATOM	4169	C	GLU	B	92	71.526	8.308	40.297	1.00	52.52	C
ATOM	4170	O	GLU	B	92	71.038	9.392	39.955	1.00	53.64	O
ATOM	4171	N	GLU	B	93	71.659	7.927	41.543	1.00	47.41	N
ATOM	4172	CA	GLU	B	93	71.240	8.782	42.592	1.00	47.60	C
ATOM	4173	CB	GLU	B	93	71.364	8.006	43.965	1.00	48.43	C
ATOM	4174	CG	GLU	B	93	70.454	6.790	44.089	1.00	50.49	C
ATOM	4175	CD	GLU	B	93	70.859	5.556	43.230	1.00	58.40	C
ATOM	4176	OE1	GLU	B	93	72.104	5.218	42.907	1.00	62.92	O
ATOM	4177	OE2	GLU	B	93	69.891	4.876	42.809	1.00	60.89	O

153/514

Figure 2

ATOM	4178	C	GLU	B	93	72.083	10.112	42.599	1.00	44.65	C
ATOM	4179	O	GLU	B	93	71.531	11.176	42.939	1.00	43.25	O
ATOM	4180	N	PHE	B	94	73.368	10.036	42.244	1.00	40.65	N
ATOM	4181	CA	PHE	B	94	74.168	11.207	42.090	1.00	39.58	C
ATOM	4182	CB	PHE	B	94	75.511	11.016	42.727	1.00	38.19	C
ATOM	4183	CG	PHE	B	94	75.541	10.928	44.179	1.00	41.78	C
ATOM	4184	CD1	PHE	B	94	76.196	11.850	44.937	1.00	47.54	C
ATOM	4185	CE1	PHE	B	94	76.321	11.765	46.267	1.00	41.60	C
ATOM	4186	CZ	PHE	B	94	75.779	10.742	46.905	1.00	44.76	C
ATOM	4187	CE2	PHE	B	94	75.105	9.753	46.194	1.00	48.20	C
ATOM	4188	CD2	PHE	B	94	75.016	9.886	44.803	1.00	52.97	C
ATOM	4189	C	PHE	B	94	74.382	11.888	40.679	1.00	38.02	C
ATOM	4190	O	PHE	B	94	75.269	12.584	40.342	1.00	36.14	O
ATOM	4191	N	SER	B	95	73.516	11.713	39.833	1.00	41.98	N
ATOM	4192	CA	SER	B	95	73.700	12.243	38.510	1.00	41.23	C
ATOM	4193	CB	SER	B	95	72.995	11.263	37.616	1.00	42.60	C
ATOM	4194	OG	SER	B	95	71.627	11.399	37.748	1.00	42.61	O
ATOM	4195	C	SER	B	95	73.051	13.541	38.393	1.00	41.37	C
ATOM	4196	O	SER	B	95	72.887	14.158	37.359	1.00	44.32	O
ATOM	4197	N	GLY	B	96	72.639	14.064	39.467	1.00	41.17	N
ATOM	4198	CA	GLY	B	96	71.949	15.351	39.297	1.00	41.06	C
ATOM	4199	C	GLY	B	96	72.917	16.485	39.222	1.00	40.63	C
ATOM	4200	O	GLY	B	96	74.052	16.373	39.696	1.00	39.53	O
ATOM	4201	N	ARG	B	97	72.515	17.621	38.590	1.00	40.72	N
ATOM	4202	CA	ARG	B	97	73.443	18.757	38.424	1.00	35.83	C
ATOM	4203	CB	ARG	B	97	73.278	19.316	37.054	1.00	31.62	C
ATOM	4204	CG	ARG	B	97	73.958	20.676	36.948	1.00	30.74	C
ATOM	4205	CD	ARG	B	97	75.367	20.639	36.930	1.00	31.56	C
ATOM	4206	NE	ARG	B	97	76.045	19.929	35.719	1.00	38.87	N
ATOM	4207	CZ	ARG	B	97	77.211	19.109	35.900	1.00	40.88	C
ATOM	4208	NH1	ARG	B	97	77.750	18.496	34.886	1.00	33.22	N
ATOM	4209	NH2	ARG	B	97	77.777	18.923	37.120	1.00	31.33	N
ATOM	4210	C	ARG	B	97	73.045	19.747	39.384	1.00	40.18	C
ATOM	4211	O	ARG	B	97	71.839	20.146	39.489	1.00	42.36	O
ATOM	4212	N	GLY	B	98	73.979	20.234	40.152	1.00	42.11	N
ATOM	4213	CA	GLY	B	98	73.489	21.212	41.111	1.00	42.22	C
ATOM	4214	C	GLY	B	98	73.695	22.582	40.679	1.00	44.47	C
ATOM	4215	O	GLY	B	98	74.517	22.753	39.931	1.00	49.07	O
ATOM	4216	N	ILE	B	99	73.012	23.609	41.124	1.00	47.82	N
ATOM	4217	CA	ILE	B	99	73.267	24.936	40.489	1.00	48.64	C
ATOM	4218	CB	ILE	B	99	72.081	25.389	39.918	1.00	48.12	C
ATOM	4219	CG1	ILE	B	99	71.330	24.218	39.298	1.00	53.93	C
ATOM	4220	CD1	ILE	B	99	71.631	23.904	37.797	1.00	51.17	C
ATOM	4221	CG2	ILE	B	99	72.410	26.249	38.789	1.00	50.83	C
ATOM	4222	C	ILE	B	99	73.438	25.857	41.573	1.00	49.19	C
ATOM	4223	O	ILE	B	99	72.740	25.731	42.397	1.00	53.18	O
ATOM	4224	N	PHE	B	100	74.371	26.747	41.592	1.00	48.35	N
ATOM	4225	CA	PHE	B	100	74.556	27.723	42.613	1.00	48.02	C
ATOM	4226	CB	PHE	B	100	76.054	28.091	42.927	1.00	49.22	C
ATOM	4227	CG	PHE	B	100	76.765	27.046	43.741	1.00	48.81	C
ATOM	4228	CD1	PHE	B	100	77.526	26.091	43.196	1.00	40.88	C
ATOM	4229	CE1	PHE	B	100	78.022	25.178	43.934	1.00	41.91	C
ATOM	4230	CZ	PHE	B	100	77.906	25.087	45.180	1.00	40.06	C
ATOM	4231	CE2	PHE	B	100	77.262	25.982	45.757	1.00	51.02	C
ATOM	4232	CD2	PHE	B	100	76.637	27.023	45.030	1.00	50.59	C
ATOM	4233	C	PHE	B	100	73.879	29.019	42.101	1.00	50.19	C
ATOM	4234	O	PHE	B	100	73.499	29.114	40.936	1.00	50.49	O
ATOM	4235	N	PRO	B	101	73.790	30.043	42.957	1.00	50.32	N
ATOM	4236	CA	PRO	B	101	73.114	31.262	42.712	1.00	48.99	C
ATOM	4237	CB	PRO	B	101	73.639	32.028	43.887	1.00	51.01	C
ATOM	4238	CG	PRO	B	101	73.590	31.148	44.958	1.00	48.56	C
ATOM	4239	CD	PRO	B	101	74.374	30.085	44.332	1.00	52.78	C
ATOM	4240	C	PRO	B	101	73.387	31.967	41.439	1.00	48.21	C
ATOM	4241	O	PRO	B	101	72.470	32.196	40.726	1.00	50.56	O
ATOM	4242	N	LEU	B	102	74.604	32.340	41.190	1.00	49.21	N
ATOM	4243	CA	LEU	B	102	75.021	33.155	40.092	1.00	49.23	C
ATOM	4244	CB	LEU	B	102	76.479	33.433	40.241	1.00	46.25	C
ATOM	4245	CG	LEU	B	102	76.968	34.638	39.560	1.00	53.62	C
ATOM	4246	CD1	LEU	B	102	78.168	34.221	38.707	1.00	55.95	C
ATOM	4247	CD2	LEU	B	102	76.122	35.364	38.539	1.00	56.22	C
ATOM	4248	C	LEU	B	102	74.758	32.503	38.914	1.00	52.00	C
ATOM	4249	O	LEU	B	102	74.168	32.978	38.028	1.00	53.85	O
ATOM	4250	N	ALA	B	103	75.202	31.283	38.853	1.00	58.34	N
ATOM	4251	CA	ALA	B	103	75.028	30.420	37.669	1.00	57.44	C
ATOM	4252	CB	ALA	B	103	75.633	29.012	37.891	1.00	56.71	C
ATOM	4253	C	ALA	B	103	73.519	30.309	37.433	1.00	58.56	C

154/514

Figure 2

ATOM	4254	O	ALA	B	103	72.976	30.290	36.328	1.00	55.94	O
ATOM	4255	N	GLU	B	104	72.819	30.486	38.483	1.00	58.89	N
ATOM	4256	CA	GLU	B	104	71.471	30.229	38.254	1.00	60.59	C
ATOM	4257	CB	GLU	B	104	70.854	29.744	39.471	1.00	62.31	C
ATOM	4258	CG	GLU	B	104	69.371	30.007	39.551	1.00	68.92	C
ATOM	4259	CD	GLU	B	104	68.736	28.993	40.525	1.00	77.79	C
ATOM	4260	OE1	GLU	B	104	68.881	29.166	41.850	1.00	81.51	O
ATOM	4261	OE2	GLU	B	104	68.141	27.954	39.967	1.00	80.03	O
ATOM	4262	C	GLU	B	104	70.754	31.374	37.712	1.00	60.86	C
ATOM	4263	O	GLU	B	104	69.763	31.158	36.977	1.00	58.65	O
ATOM	4264	N	ARG	B	105	71.250	32.576	38.037	1.00	60.68	N
ATOM	4265	CA	ARG	B	105	70.719	33.817	37.456	1.00	58.96	C
ATOM	4266	CB	ARG	B	105	71.056	34.980	38.388	1.00	59.36	C
ATOM	4267	CG	ARG	B	105	70.690	34.620	39.848	1.00	68.12	C
ATOM	4268	CD	ARG	B	105	69.617	35.651	40.555	1.00	71.89	C
ATOM	4269	NE	ARG	B	105	69.291	36.742	39.574	1.00	67.09	N
ATOM	4270	CZ	ARG	B	105	68.944	37.960	39.891	1.00	65.28	C
ATOM	4271	NH1	ARG	B	105	68.619	38.841	38.960	1.00	74.18	N
ATOM	4272	NH2	ARG	B	105	68.924	38.283	41.107	1.00	68.43	N
ATOM	4273	C	ARG	B	105	71.303	34.040	36.120	1.00	54.64	C
ATOM	4274	O	ARG	B	105	70.780	34.637	35.294	1.00	52.24	O
ATOM	4275	N	ALA	B	106	72.467	33.550	35.888	1.00	55.41	N
ATOM	4276	CA	ALA	B	106	73.047	33.889	34.581	1.00	55.03	C
ATOM	4277	CB	ALA	B	106	74.480	33.989	34.650	1.00	51.71	C
ATOM	4278	C	ALA	B	106	72.615	32.972	33.496	1.00	56.94	C
ATOM	4279	O	ALA	B	106	73.049	33.074	32.393	1.00	55.31	O
ATOM	4280	N	ASN	B	107	71.725	32.034	33.819	1.00	59.89	N
ATOM	4281	CA	ASN	B	107	71.300	31.084	32.786	1.00	59.88	C
ATOM	4282	CB	ASN	B	107	71.590	29.671	33.217	1.00	58.92	C
ATOM	4283	CG	ASN	B	107	73.016	29.215	32.849	1.00	60.93	C
ATOM	4284	OD1	ASN	B	107	73.644	28.462	33.607	1.00	61.12	O
ATOM	4285	ND2	ASN	B	107	73.512	29.637	31.716	1.00	59.20	N
ATOM	4286	C	ASN	B	107	69.809	31.183	32.364	1.00	61.44	C
ATOM	4287	O	ASN	B	107	68.877	31.078	33.145	1.00	59.84	O
ATOM	4288	N	ARG	B	108	69.581	31.359	31.084	1.00	62.35	N
ATOM	4289	CA	ARG	B	108	68.191	31.393	30.666	1.00	61.00	C
ATOM	4290	CB	ARG	B	108	67.958	32.691	29.892	1.00	62.20	C
ATOM	4291	CG	ARG	B	108	66.596	33.394	30.107	1.00	65.65	C
ATOM	4292	CD	ARG	B	108	66.353	33.987	31.498	1.00	70.34	C
ATOM	4293	NE	ARG	B	108	66.390	35.441	31.695	1.00	69.94	N
ATOM	4294	CZ	ARG	B	108	66.741	36.313	30.845	1.00	68.65	C
ATOM	4295	NH1	ARG	B	108	67.145	35.972	29.663	1.00	69.59	N
ATOM	4296	NH2	ARG	B	108	66.708	37.576	31.174	1.00	69.02	N
ATOM	4297	C	ARG	B	108	68.105	30.164	29.742	1.00	60.69	C
ATOM	4298	O	ARG	B	108	68.647	30.099	28.621	1.00	63.36	O
ATOM	4299	N	GLY	B	109	67.481	29.138	30.190	1.00	57.83	N
ATOM	4300	CA	GLY	B	109	67.368	28.006	29.361	1.00	53.93	C
ATOM	4301	C	GLY	B	109	68.572	27.047	29.481	1.00	55.18	C
ATOM	4302	O	GLY	B	109	69.688	27.356	29.333	1.00	54.13	O
ATOM	4303	N	PHE	B	110	68.254	25.774	29.692	1.00	54.02	N
ATOM	4304	CA	PHE	B	110	69.145	24.779	29.901	1.00	49.20	C
ATOM	4305	CB	PHE	B	110	68.683	24.021	31.118	1.00	49.22	C
ATOM	4306	CG	PHE	B	110	68.659	24.885	32.405	1.00	49.24	C
ATOM	4307	CD1	PHE	B	110	69.679	25.701	32.707	1.00	57.69	C
ATOM	4308	CE1	PHE	B	110	69.768	26.500	33.831	1.00	58.86	C
ATOM	4309	CZ	PHE	B	110	68.728	26.468	34.683	1.00	68.16	C
ATOM	4310	CE2	PHE	B	110	67.610	25.616	34.334	1.00	64.86	C
ATOM	4311	CD2	PHE	B	110	67.624	24.879	33.208	1.00	55.72	C
ATOM	4312	C	PHE	B	110	69.260	23.960	28.766	1.00	50.42	C
ATOM	4313	O	PHE	B	110	68.347	23.762	28.074	1.00	53.18	O
ATOM	4314	N	GLY	B	111	70.503	23.481	28.553	1.00	51.19	N
ATOM	4315	CA	GLY	B	111	70.867	22.636	27.432	1.00	49.56	C
ATOM	4316	C	GLY	B	111	71.411	21.252	27.814	1.00	48.77	C
ATOM	4317	O	GLY	B	111	70.711	20.348	28.011	1.00	48.45	O
ATOM	4318	N	ILE	B	112	72.690	21.095	27.985	1.00	45.63	N
ATOM	4319	CA	ILE	B	112	73.089	19.914	28.523	1.00	41.96	C
ATOM	4320	CB	ILE	B	112	73.894	19.346	27.669	1.00	45.69	C
ATOM	4321	CG1	ILE	B	112	74.420	18.020	28.077	1.00	41.31	C
ATOM	4322	CD1	ILE	B	112	75.015	17.465	26.750	1.00	49.84	C
ATOM	4323	CG2	ILE	B	112	75.132	20.188	27.432	1.00	51.26	C
ATOM	4324	C	ILE	B	112	73.808	20.191	29.799	1.00	42.38	C
ATOM	4325	O	ILE	B	112	73.542	19.414	30.745	1.00	47.58	O
ATOM	4326	N	VAL	B	113	74.664	21.197	29.982	1.00	35.23	N
ATOM	4327	CA	VAL	B	113	75.395	21.298	31.262	1.00	34.15	C
ATOM	4328	CB	VAL	B	113	76.337	22.397	31.217	1.00	34.50	C
ATOM	4329	CG1	VAL	B	113	76.940	22.685	32.526	1.00	37.61	C

155/514

Figure 2

ATOM	4330	CG2	VAL	B	113	77.435	22.158	30.371	1.00	35.98	C
ATOM	4331	C	VAL	B	113	74.678	21.443	32.531	1.00	35.54	C
ATOM	4332	O	VAL	B	113	75.104	21.010	33.562	1.00	40.16	O
ATOM	4333	N	PHE	B	114	73.590	22.110	32.538	1.00	39.61	N
ATOM	4334	CA	PHE	B	114	72.740	22.401	33.726	1.00	37.70	C
ATOM	4335	CB	PHE	B	114	72.571	23.888	33.751	1.00	37.50	C
ATOM	4336	CG	PHE	B	114	73.801	24.649	33.987	1.00	38.79	C
ATOM	4337	CD1	PHE	B	114	74.345	25.235	33.044	1.00	36.00	C
ATOM	4338	CE1	PHE	B	114	75.567	26.032	33.294	1.00	32.54	C
ATOM	4339	CZ	PHE	B	114	76.111	26.095	34.503	1.00	33.29	C
ATOM	4340	CE2	PHE	B	114	75.604	25.492	35.460	1.00	31.08	C
ATOM	4341	CD2	PHE	B	114	74.421	24.777	35.276	1.00	36.11	C
ATOM	4342	C	PHE	B	114	71.346	21.863	33.675	1.00	38.05	C
ATOM	4343	O	PHE	B	114	70.510	22.304	34.400	1.00	42.69	O
ATOM	4344	N	SER	B	115	71.029	20.991	32.759	1.00	39.05	N
ATOM	4345	CA	SER	B	115	69.798	20.329	32.597	1.00	35.09	C
ATOM	4346	CB	SER	B	115	69.861	19.656	31.354	1.00	37.40	C
ATOM	4347	OG	SER	B	115	69.243	20.455	30.499	1.00	41.19	O
ATOM	4348	C	SER	B	115	69.695	19.234	33.659	1.00	34.07	C
ATOM	4349	O	SER	B	115	70.611	18.943	34.206	1.00	37.46	O
ATOM	4350	N	ASN	B	116	68.565	18.685	33.943	1.00	34.04	N
ATOM	4351	CA	ASN	B	116	68.404	17.640	34.915	1.00	35.27	C
ATOM	4352	CB	ASN	B	116	68.163	18.092	36.206	1.00	33.60	C
ATOM	4353	CG	ASN	B	116	69.340	18.314	36.986	1.00	32.18	C
ATOM	4354	OD1	ASN	B	116	70.012	17.395	37.369	1.00	42.43	O
ATOM	4355	ND2	ASN	B	116	69.610	19.535	37.350	1.00	32.04	N
ATOM	4356	C	ASN	B	116	67.167	16.876	34.370	1.00	41.22	C
ATOM	4357	O	ASN	B	116	66.569	17.316	33.435	1.00	47.12	O
ATOM	4358	N	GLY	B	117	66.900	15.671	34.818	1.00	44.74	N
ATOM	4359	CA	GLY	B	117	65.868	14.796	34.257	1.00	43.44	C
ATOM	4360	C	GLY	B	117	65.843	14.311	32.892	1.00	46.23	C
ATOM	4361	O	GLY	B	117	66.891	14.148	32.305	1.00	46.99	O
ATOM	4362	N	LYS	B	118	64.638	13.946	32.405	1.00	47.48	N
ATOM	4363	CA	LYS	B	118	64.484	13.571	31.031	1.00	48.80	C
ATOM	4364	CB	LYS	B	118	62.965	13.435	30.521	1.00	50.03	C
ATOM	4365	CG	LYS	B	118	62.076	14.274	31.317	1.00	58.67	C
ATOM	4366	CD	LYS	B	118	62.891	15.703	31.980	1.00	66.47	C
ATOM	4367	CE	LYS	B	118	62.726	15.983	33.556	1.00	66.60	C
ATOM	4368	NZ	LYS	B	118	61.796	14.992	34.366	1.00	51.23	N
ATOM	4369	C	LYS	B	118	65.165	14.600	30.150	1.00	47.75	C
ATOM	4370	O	LYS	B	118	65.788	14.288	29.164	1.00	49.23	O
ATOM	4371	N	LYS	B	119	65.008	15.841	30.405	1.00	46.87	N
ATOM	4372	CA	LYS	B	119	65.547	16.711	29.403	1.00	46.82	C
ATOM	4373	CB	LYS	B	119	65.227	18.167	29.664	1.00	47.75	C
ATOM	4374	CG	LYS	B	119	66.046	19.136	28.850	1.00	50.52	C
ATOM	4375	CD	LYS	B	119	65.353	20.438	28.687	1.00	54.20	C
ATOM	4376	CE	LYS	B	119	66.434	21.290	28.254	1.00	58.32	C
ATOM	4377	NZ	LYS	B	119	65.850	22.593	27.903	1.00	70.56	N
ATOM	4378	C	LYS	B	119	67.061	16.509	29.283	1.00	44.52	C
ATOM	4379	O	LYS	B	119	67.558	16.568	28.105	1.00	43.90	O
ATOM	4380	N	TRP	B	120	67.740	16.323	30.407	1.00	39.73	N
ATOM	4381	CA	TRP	B	120	69.151	16.056	30.339	1.00	40.41	C
ATOM	4382	CB	TRP	B	120	69.736	16.163	31.711	1.00	42.90	C
ATOM	4383	CG	TRP	B	120	71.173	15.618	31.876	1.00	39.35	C
ATOM	4384	CD1	TRP	B	120	72.173	16.165	31.495	1.00	43.23	C
ATOM	4385	NE1	TRP	B	120	73.315	15.463	31.792	1.00	40.10	N
ATOM	4386	CE2	TRP	B	120	72.927	14.420	32.467	1.00	38.65	C
ATOM	4387	CD2	TRP	B	120	71.582	14.489	32.538	1.00	38.69	C
ATOM	4388	CE3	TRP	B	120	70.926	13.493	33.216	1.00	41.00	C
ATOM	4389	CZ3	TRP	B	120	71.640	12.530	33.731	1.00	35.97	C
ATOM	4390	CH2	TRP	B	120	73.037	12.454	33.614	1.00	31.63	C
ATOM	4391	CZ2	TRP	B	120	73.679	13.403	32.997	1.00	41.49	C
ATOM	4392	C	TRP	B	120	69.504	14.724	29.737	1.00	41.85	C
ATOM	4393	O	TRP	B	120	70.185	14.568	28.690	1.00	43.19	O
ATOM	4394	N	LYS	B	121	68.935	13.708	30.298	1.00	44.12	N
ATOM	4395	CA	LYS	B	121	69.036	12.319	29.787	1.00	45.20	C
ATOM	4396	CB	LYS	B	121	67.891	11.455	30.384	1.00	46.97	C
ATOM	4397	CG	LYS	B	121	68.253	10.561	31.667	1.00	53.32	C
ATOM	4398	CD	LYS	B	121	69.463	9.622	31.295	1.00	73.89	C
ATOM	4399	CE	LYS	B	121	70.410	8.919	32.600	1.00	77.84	C
ATOM	4400	NZ	LYS	B	121	71.873	8.354	32.159	1.00	71.04	N
ATOM	4401	C	LYS	B	121	68.985	12.253	28.274	1.00	45.20	C
ATOM	4402	O	LYS	B	121	69.939	11.718	27.540	1.00	46.68	O
ATOM	4403	N	GLU	B	122	67.904	12.763	27.733	1.00	43.59	N
ATOM	4404	CA	GLU	B	122	67.814	12.825	26.317	1.00	42.90	C
ATOM	4405	CB	GLU	B	122	66.455	13.260	25.917	1.00	41.76	C

Figure 2

ATOM	4406	CG	GLU	B	122	65.369	12.222	26.198	1.00	50.86	C
ATOM	4407	CD	GLU	B	122	63.938	12.665	25.750	1.00	56.11	C
ATOM	4408	OE1	GLU	B	122	63.300	13.375	26.586	1.00	64.97	O
ATOM	4409	OE2	GLU	B	122	63.496	12.318	24.654	1.00	54.97	O
ATOM	4410	C	GLU	B	122	68.886	13.658	25.648	1.00	41.06	C
ATOM	4411	O	GLU	B	122	69.637	13.196	24.804	1.00	48.44	O
ATOM	4412	N	ILE	B	123	69.039	14.854	25.964	1.00	36.24	N
ATOM	4413	CA	ILE	B	123	69.934	15.616	25.153	1.00	33.94	C
ATOM	4414	CB	ILE	B	123	69.791	17.148	25.515	1.00	32.42	C
ATOM	4415	CG1	ILE	B	123	68.531	17.579	24.901	1.00	33.95	C
ATOM	4416	CD1	ILE	B	123	68.247	18.979	25.340	1.00	47.27	C
ATOM	4417	CG2	ILE	B	123	70.670	18.039	24.716	1.00	38.07	C
ATOM	4418	C	ILE	B	123	71.238	15.147	25.290	1.00	31.77	C
ATOM	4419	O	ILE	B	123	72.060	15.226	24.411	1.00	32.60	O
ATOM	4420	N	ARG	B	124	71.531	14.597	26.440	1.00	34.66	N
ATOM	4421	CA	ARG	B	124	72.867	14.088	26.572	1.00	33.26	C
ATOM	4422	CB	ARG	B	124	73.208	13.769	27.969	1.00	30.75	C
ATOM	4423	CG	ARG	B	124	74.762	13.153	28.159	1.00	34.15	C
ATOM	4424	CD	ARG	B	124	75.017	12.798	29.493	1.00	32.20	C
ATOM	4425	NE	ARG	B	124	76.274	12.062	29.710	1.00	36.67	N
ATOM	4426	CZ	ARG	B	124	77.342	12.558	30.211	1.00	35.77	C
ATOM	4427	NH1	ARG	B	124	77.520	13.885	30.462	1.00	46.91	N
ATOM	4428	NH2	ARG	B	124	78.319	11.819	30.460	1.00	39.39	N
ATOM	4429	C	ARG	B	124	73.148	12.951	25.701	1.00	33.88	C
ATOM	4430	O	ARG	B	124	74.265	12.791	25.188	1.00	37.19	O
ATOM	4431	N	ARG	B	125	72.160	12.110	25.588	1.00	38.21	N
ATOM	4432	CA	ARG	B	125	72.332	10.913	24.821	1.00	41.77	C
ATOM	4433	CB	ARG	B	125	71.149	10.110	24.946	1.00	46.58	C
ATOM	4434	CG	ARG	B	125	71.093	9.115	23.973	1.00	53.89	C
ATOM	4435	CD	ARG	B	125	70.410	7.830	24.522	1.00	64.37	C
ATOM	4436	NE	ARG	B	125	70.394	7.027	23.238	1.00	83.91	N
ATOM	4437	CZ	ARG	B	125	69.979	5.727	23.100	1.00	91.13	C
ATOM	4438	NH1	ARG	B	125	69.485	5.016	24.198	1.00	92.30	N
ATOM	4439	NH2	ARG	B	125	70.020	5.139	21.881	1.00	89.37	N
ATOM	4440	C	ARG	B	125	72.522	11.253	23.456	1.00	40.62	C
ATOM	4441	O	ARG	B	125	73.570	10.880	22.921	1.00	45.90	O
ATOM	4442	N	PHE	B	126	71.688	12.109	22.901	1.00	36.32	N
ATOM	4443	CA	PHE	B	126	71.896	12.597	21.516	1.00	35.36	C
ATOM	4444	CB	PHE	B	126	70.900	13.720	21.203	1.00	37.33	C
ATOM	4445	CG	PHE	B	126	71.046	14.314	19.860	1.00	39.93	C
ATOM	4446	CD1	PHE	B	126	71.833	15.363	19.694	1.00	50.13	C
ATOM	4447	CE1	PHE	B	126	72.038	15.980	18.428	1.00	55.83	C
ATOM	4448	CZ	PHE	B	126	71.392	15.462	17.334	1.00	50.49	C
ATOM	4449	CE2	PHE	B	126	70.516	14.302	17.575	1.00	48.08	C
ATOM	4450	CD2	PHE	B	126	70.378	13.788	18.762	1.00	42.33	C
ATOM	4451	C	PHE	B	126	73.208	13.167	21.229	1.00	36.06	C
ATOM	4452	O	PHE	B	126	73.780	12.955	20.183	1.00	41.04	O
ATOM	4453	N	SER	B	127	73.767	13.912	22.144	1.00	33.94	N
ATOM	4454	CA	SER	B	127	75.024	14.480	21.941	1.00	32.94	C
ATOM	4455	CB	SER	B	127	75.273	15.420	23.093	1.00	36.19	C
ATOM	4456	OG	SER	B	127	74.484	16.625	22.884	1.00	37.03	O
ATOM	4457	C	SER	B	127	76.109	13.547	21.914	1.00	33.04	C
ATOM	4458	O	SER	B	127	76.948	13.579	20.957	1.00	35.34	O
ATOM	4459	N	LEU	B	128	76.119	12.628	22.846	1.00	32.38	N
ATOM	4460	CA	LEU	B	128	77.155	11.557	22.794	1.00	32.90	C
ATOM	4461	CB	LEU	B	128	76.939	10.576	23.882	1.00	31.24	C
ATOM	4462	CG	LEU	B	128	77.448	11.106	25.205	1.00	33.92	C
ATOM	4463	CD1	LEU	B	128	77.214	10.269	26.297	1.00	34.30	C
ATOM	4464	CD2	LEU	B	128	79.036	11.287	25.096	1.00	36.50	C
ATOM	4465	C	LEU	B	128	77.111	10.929	21.451	1.00	35.66	C
ATOM	4466	O	LEU	B	128	78.077	10.689	20.758	1.00	35.61	O
ATOM	4467	N	MET	B	129	75.963	10.728	20.909	1.00	40.15	N
ATOM	4468	CA	MET	B	129	75.975	10.133	19.570	1.00	43.78	C
ATOM	4469	CB	MET	B	129	74.609	9.887	19.057	1.00	50.42	C
ATOM	4470	CG	MET	B	129	74.294	8.355	18.731	1.00	55.47	C
ATOM	4471	SD	MET	B	129	74.475	7.685	20.370	1.00	72.27	S
ATOM	4472	CE	MET	B	129	72.303	7.261	20.997	1.00	70.24	C
ATOM	4473	C	MET	B	129	76.565	10.830	18.498	1.00	43.11	C
ATOM	4474	O	MET	B	129	77.401	10.237	17.824	1.00	44.84	O
ATOM	4475	N	THR	B	130	76.122	12.067	18.274	1.00	39.24	N
ATOM	4476	CA	THR	B	130	76.770	12.884	17.275	1.00	37.48	C
ATOM	4477	CB	THR	B	130	76.095	14.242	17.306	1.00	40.70	C
ATOM	4478	OG1	THR	B	130	76.548	14.985	18.555	1.00	42.11	O
ATOM	4479	CG2	THR	B	130	74.504	13.995	17.448	1.00	40.47	C
ATOM	4480	C	THR	B	130	78.182	13.046	17.612	1.00	36.33	C
ATOM	4481	O	THR	B	130	78.927	13.277	16.777	1.00	42.06	O

157/514

Figure 2

ATOM	4482	N	LEU B 131	78.610	12.923	18.834	1.00	34.35	N
ATOM	4483	CA	LEU B 131	80.042	13.074	19.060	1.00	34.99	C
ATOM	4484	CB	LEU B 131	80.356	13.546	20.565	1.00	31.82	C
ATOM	4485	CG	LEU B 131	80.244	15.078	20.645	1.00	37.62	C
ATOM	4486	CD1	LEU B 131	80.614	15.423	21.904	1.00	45.68	C
ATOM	4487	CD2	LEU B 131	80.998	15.963	19.734	1.00	38.54	C
ATOM	4488	C	LEU B 131	80.964	11.905	18.779	1.00	34.21	C
ATOM	4489	O	LEU B 131	82.143	11.905	18.994	1.00	33.77	O
ATOM	4490	N	ARG B 132	80.396	10.830	18.428	1.00	35.61	N
ATOM	4491	CA	ARG B 132	81.189	9.634	18.133	1.00	33.24	C
ATOM	4492	CB	ARG B 132	80.093	8.542	17.770	1.00	35.05	C
ATOM	4493	CG	ARG B 132	79.466	7.855	18.800	1.00	33.85	C
ATOM	4494	CD	ARG B 132	78.358	6.927	18.258	1.00	42.07	C
ATOM	4495	NE	ARG B 132	77.779	7.359	17.102	1.00	47.85	N
ATOM	4496	CZ	ARG B 132	76.551	7.067	16.638	1.00	61.03	C
ATOM	4497	NH1	ARG B 132	75.829	6.289	17.379	1.00	66.66	N
ATOM	4498	NH2	ARG B 132	75.998	7.589	15.429	1.00	55.98	N
ATOM	4499	C	ARG B 132	81.983	9.836	16.859	1.00	31.97	C
ATOM	4500	O	ARG B 132	81.553	10.395	15.857	1.00	28.82	O
ATOM	4501	N	ASN B 133	83.171	9.300	16.821	1.00	32.54	N
ATOM	4502	CA	ASN B 133	84.108	9.591	15.732	1.00	29.60	C
ATOM	4503	CB	ASN B 133	85.268	8.775	15.768	1.00	24.69	C
ATOM	4504	CG	ASN B 133	86.317	9.270	14.926	1.00	30.80	C
ATOM	4505	OD1	ASN B 133	87.067	8.533	14.461	1.00	37.42	O
ATOM	4506	ND2	ASN B 133	86.450	10.509	14.732	1.00	31.83	N
ATOM	4507	C	ASN B 133	83.484	9.543	14.421	1.00	30.46	C
ATOM	4508	O	ASN B 133	83.760	10.343	13.625	1.00	31.49	O
ATOM	4509	N	PHE B 134	82.623	8.625	14.181	1.00	32.64	N
ATOM	4510	CA	PHE B 134	81.892	8.581	12.857	1.00	35.13	C
ATOM	4511	CB	PHE B 134	82.059	7.322	12.135	1.00	32.18	C
ATOM	4512	CG	PHE B 134	83.479	7.045	11.777	1.00	29.88	C
ATOM	4513	CD1	PHE B 134	83.970	7.417	10.634	1.00	32.97	C
ATOM	4514	CE1	PHE B 134	85.365	7.281	10.229	1.00	19.90	C
ATOM	4515	CZ	PHE B 134	86.129	6.721	10.997	1.00	20.67	C
ATOM	4516	CE2	PHE B 134	85.705	6.194	12.217	1.00	27.25	C
ATOM	4517	CD2	PHE B 134	84.340	6.412	12.612	1.00	34.80	C
ATOM	4518	C	PHE B 134	80.393	8.823	13.093	1.00	37.67	C
ATOM	4519	O	PHE B 134	79.595	8.528	12.322	1.00	38.93	O
ATOM	4520	N	GLY B 135	80.040	9.433	14.181	1.00	41.41	N
ATOM	4521	CA	GLY B 135	78.686	9.804	14.442	1.00	44.83	C
ATOM	4522	C	GLY B 135	77.940	10.810	13.485	1.00	49.87	C
ATOM	4523	O	GLY B 135	76.622	11.080	13.747	1.00	52.11	O
ATOM	4524	N	MET B 136	78.560	11.284	12.375	1.00	50.97	N
ATOM	4525	CA	MET B 136	77.725	12.134	11.527	1.00	51.04	C
ATOM	4526	CB	MET B 136	77.304	13.392	12.401	1.00	50.71	C
ATOM	4527	CG	MET B 136	78.169	14.546	12.417	1.00	49.77	C
ATOM	4528	SD	MET B 136	78.010	15.480	14.017	1.00	50.48	S
ATOM	4529	CE	MET B 136	79.783	15.823	14.271	1.00	39.26	C
ATOM	4530	C	MET B 136	78.260	12.500	10.192	1.00	52.97	C
ATOM	4531	O	MET B 136	79.090	13.490	10.064	1.00	54.60	O
ATOM	4532	N	GLY B 137	77.785	11.768	9.152	1.00	54.67	N
ATOM	4533	CA	GLY B 137	78.215	12.078	7.793	1.00	56.58	C
ATOM	4534	C	GLY B 137	79.511	11.296	7.622	1.00	56.21	C
ATOM	4535	O	GLY B 137	79.809	10.642	8.455	1.00	55.01	O
ATOM	4536	N	LYS B 138	80.206	11.504	6.514	1.00	57.04	N
ATOM	4537	CA	LYS B 138	81.367	10.871	6.054	1.00	58.31	C
ATOM	4538	CB	LYS B 138	81.310	10.948	4.467	1.00	62.38	C
ATOM	4539	CG	LYS B 138	79.758	10.684	3.708	1.00	65.76	C
ATOM	4540	CD	LYS B 138	79.864	10.362	2.163	1.00	77.13	C
ATOM	4541	CE	LYS B 138	80.729	11.436	1.445	1.00	79.91	C
ATOM	4542	NZ	LYS B 138	81.503	10.642	0.422	1.00	71.84	N
ATOM	4543	C	LYS B 138	82.651	11.480	6.394	1.00	57.84	C
ATOM	4544	O	LYS B 138	83.744	11.044	5.839	1.00	57.54	O
ATOM	4545	N	ARG B 139	82.577	12.543	7.220	1.00	54.92	N
ATOM	4546	CA	ARG B 139	83.740	13.180	7.829	1.00	48.10	C
ATOM	4547	CB	ARG B 139	83.563	14.629	7.632	1.00	50.48	C
ATOM	4548	CG	ARG B 139	84.905	15.574	7.913	1.00	51.85	C
ATOM	4549	CD	ARG B 139	84.621	17.132	7.275	1.00	65.78	C
ATOM	4550	NE	ARG B 139	85.560	18.216	7.757	1.00	61.97	N
ATOM	4551	CZ	ARG B 139	86.862	18.068	7.627	1.00	52.90	C
ATOM	4552	NH1	ARG B 139	87.638	18.980	8.106	1.00	43.28	N
ATOM	4553	NH2	ARG B 139	87.379	16.957	6.938	1.00	61.19	N
ATOM	4554	C	ARG B 139	83.844	12.813	9.331	1.00	40.92	C
ATOM	4555	O	ARG B 139	83.040	12.974	10.106	1.00	39.93	O
ATOM	4556	N	SER B 140	84.906	12.262	9.739	1.00	37.53	N
ATOM	4557	CA	SER B 140	85.047	11.913	11.140	1.00	31.57	C

158/514

Figure 2

ATOM	4558	CB	SER	B	140	86.176	10.771	11.271	1.00	31.94	C
ATOM	4559	OG	SER	B	140	87.479	11.158	10.873	1.00	24.52	O
ATOM	4560	C	SER	B	140	85.434	13.011	12.058	1.00	26.58	C
ATOM	4561	O	SER	B	140	85.915	13.973	11.652	1.00	24.35	O
ATOM	4562	N	ILE	B	141	85.182	12.878	13.298	1.00	25.40	N
ATOM	4563	CA	ILE	B	141	85.634	13.938	14.199	1.00	29.22	C
ATOM	4564	CB	ILE	B	141	85.471	13.643	15.668	1.00	31.94	C
ATOM	4565	CG1	ILE	B	141	84.084	13.455	16.040	1.00	36.62	C
ATOM	4566	CD1	ILE	B	141	83.377	14.731	15.989	1.00	43.89	C
ATOM	4567	CG2	ILE	B	141	86.069	14.714	16.477	1.00	32.44	C
ATOM	4568	C	ILE	B	141	87.177	13.860	14.059	1.00	29.06	C
ATOM	4569	O	ILE	B	141	87.821	14.792	14.083	1.00	32.25	O
ATOM	4570	N	GLU	B	142	87.784	12.738	13.951	1.00	29.76	N
ATOM	4571	CA	GLU	B	142	89.177	12.798	13.878	1.00	29.75	C
ATOM	4572	CB	GLU	B	142	89.854	11.482	14.255	1.00	28.57	C
ATOM	4573	CG	GLU	B	142	91.282	11.386	13.898	1.00	30.13	C
ATOM	4574	CD	GLU	B	142	91.914	10.018	14.137	1.00	35.25	C
ATOM	4575	OE1	GLU	B	142	91.220	9.006	14.448	1.00	41.22	O
ATOM	4576	OE2	GLU	B	142	93.195	9.929	14.034	1.00	40.48	O
ATOM	4577	C	GLU	B	142	89.701	13.518	12.804	1.00	29.53	C
ATOM	4578	O	GLU	B	142	90.762	14.130	12.911	1.00	29.57	O
ATOM	4579	N	ASP	B	143	88.961	13.574	11.709	1.00	36.74	N
ATOM	4580	CA	ASP	B	143	89.428	14.386	10.511	1.00	37.06	C
ATOM	4581	CB	ASP	B	143	88.573	14.288	9.286	1.00	38.80	C
ATOM	4582	CG	ASP	B	143	88.935	13.089	8.415	1.00	51.24	C
ATOM	4583	OD1	ASP	B	143	90.193	12.895	8.064	1.00	58.04	O
ATOM	4584	OD2	ASP	B	143	88.003	12.252	7.968	1.00	70.15	O
ATOM	4585	C	ASP	B	143	89.556	15.816	10.897	1.00	34.68	C
ATOM	4586	O	ASP	B	143	90.758	16.398	10.940	1.00	37.09	O
ATOM	4587	N	ARG	B	144	88.392	16.317	11.320	1.00	28.48	N
ATOM	4588	CA	ARG	B	144	88.233	17.674	11.917	1.00	25.06	C
ATOM	4589	CB	ARG	B	144	86.900	17.749	12.509	1.00	23.78	C
ATOM	4590	CG	ARG	B	144	85.678	17.732	11.556	1.00	19.69	C
ATOM	4591	CD	ARG	B	144	84.402	17.948	12.216	1.00	26.08	C
ATOM	4592	NE	ARG	B	144	83.244	17.219	11.849	1.00	27.90	N
ATOM	4593	CZ	ARG	B	144	82.471	17.440	10.872	1.00	30.52	C
ATOM	4594	NH1	ARG	B	144	82.674	18.398	10.079	1.00	40.81	N
ATOM	4595	NH2	ARG	B	144	81.477	16.703	10.701	1.00	38.85	N
ATOM	4596	C	ARG	B	144	89.374	17.974	12.860	1.00	25.85	C
ATOM	4597	O	ARG	B	144	90.124	18.853	12.617	1.00	28.39	O
ATOM	4598	N	VAL	B	145	89.703	17.142	13.873	1.00	23.15	N
ATOM	4599	CA	VAL	B	145	90.728	17.578	14.665	1.00	19.32	C
ATOM	4600	CB	VAL	B	145	90.770	16.785	15.890	1.00	18.87	C
ATOM	4601	CG1	VAL	B	145	91.820	17.153	16.710	1.00	16.20	C
ATOM	4602	CG2	VAL	B	145	89.701	16.969	16.622	1.00	19.56	C
ATOM	4603	C	VAL	B	145	91.973	17.557	13.982	1.00	25.68	C
ATOM	4604	O	VAL	B	145	92.813	18.494	14.221	1.00	30.26	O
ATOM	4605	N	GLN	B	146	92.276	16.603	13.073	1.00	27.14	N
ATOM	4606	CA	GLN	B	146	93.643	16.687	12.285	1.00	26.50	C
ATOM	4607	CB	GLN	B	146	93.807	15.543	11.406	1.00	26.46	C
ATOM	4608	CG	GLN	B	146	93.736	14.142	12.227	1.00	32.82	C
ATOM	4609	CD	GLN	B	146	94.017	12.986	11.466	1.00	36.97	C
ATOM	4610	OE1	GLN	B	146	95.106	12.604	11.480	1.00	34.49	O
ATOM	4611	NE2	GLN	B	146	92.966	12.393	10.724	1.00	40.06	N
ATOM	4612	C	GLN	B	146	93.774	17.834	11.404	1.00	27.30	C
ATOM	4613	O	GLN	B	146	94.881	18.409	11.235	1.00	27.70	O
ATOM	4614	N	GLU	B	147	92.659	18.277	10.871	1.00	28.08	N
ATOM	4615	CA	GLU	B	147	92.726	19.504	10.068	1.00	28.92	C
ATOM	4616	CB	GLU	B	147	91.441	19.755	9.273	1.00	29.57	C
ATOM	4617	CG	GLU	B	147	91.602	20.986	8.436	1.00	28.44	C
ATOM	4618	CD	GLU	B	147	90.180	21.537	7.892	1.00	38.61	C
ATOM	4619	OE1	GLU	B	147	89.062	21.228	8.450	1.00	40.53	O
ATOM	4620	OE2	GLU	B	147	90.162	22.379	6.910	1.00	42.19	O
ATOM	4621	C	GLU	B	147	93.033	20.730	10.924	1.00	30.33	C
ATOM	4622	O	GLU	B	147	94.010	21.482	10.579	1.00	32.59	O
ATOM	4623	N	GLU	B	148	92.359	20.913	12.036	1.00	24.62	N
ATOM	4624	CA	GLU	B	148	92.696	22.027	12.915	1.00	26.05	C
ATOM	4625	CB	GLU	B	148	91.828	22.105	14.102	1.00	25.13	C
ATOM	4626	CG	GLU	B	148	91.819	23.402	14.770	1.00	29.49	C
ATOM	4627	CD	GLU	B	148	91.293	24.516	13.861	1.00	35.44	C
ATOM	4628	OE1	GLU	B	148	90.280	24.176	13.104	1.00	38.52	O
ATOM	4629	OE2	GLU	B	148	91.839	25.626	13.868	1.00	26.16	O
ATOM	4630	C	GLU	B	148	94.039	21.903	13.357	1.00	25.34	C
ATOM	4631	O	GLU	B	148	94.825	22.747	13.567	1.00	27.01	O
ATOM	4632	N	ALA	B	149	94.408	20.754	13.495	1.00	29.08	N
ATOM	4633	CA	ALA	B	149	95.821	20.613	13.969	1.00	31.51	C

Figure 2

ATOM	4634	CB	ALA	B	149	95.949	19.189	14.228	1.00	29.77	C
ATOM	4635	C	ALA	B	149	96.896	21.084	12.954	1.00	32.30	C
ATOM	4636	O	ALA	B	149	98.029	21.603	13.303	1.00	30.46	O
ATOM	4637	N	ARG	B	150	96.628	20.940	11.644	1.00	35.28	N
ATOM	4638	CA	ARG	B	150	97.748	21.498	10.816	1.00	36.88	C
ATOM	4639	CB	ARG	B	150	97.924	20.840	9.504	1.00	36.95	C
ATOM	4640	CG	ARG	B	150	96.966	21.008	8.608	1.00	44.66	C
ATOM	4641	CD	ARG	B	150	97.225	20.497	7.083	1.00	49.23	C
ATOM	4642	NE	ARG	B	150	96.425	21.560	6.322	1.00	50.58	N
ATOM	4643	CZ	ARG	B	150	95.214	21.353	5.893	1.00	53.67	C
ATOM	4644	NH1	ARG	B	150	94.571	22.326	5.235	1.00	56.31	N
ATOM	4645	NH2	ARG	B	150	94.585	20.155	6.113	1.00	53.86	N
ATOM	4646	C	ARG	B	150	97.594	23.009	10.807	1.00	39.81	C
ATOM	4647	O	ARG	B	150	98.515	23.834	11.068	1.00	43.30	O
ATOM	4648	N	CYS	B	151	96.364	23.470	10.706	1.00	38.34	N
ATOM	4649	CA	CYS	B	151	96.216	24.879	10.790	1.00	36.12	C
ATOM	4650	CB	CYS	B	151	94.770	25.244	10.830	1.00	37.05	C
ATOM	4651	SG	CYS	B	151	94.094	24.801	9.195	1.00	42.05	S
ATOM	4652	C	CYS	B	151	96.852	25.392	12.023	1.00	38.35	C
ATOM	4653	O	CYS	B	151	97.488	26.188	11.829	1.00	45.10	O
ATOM	4654	N	LEU	B	152	96.729	24.930	13.289	1.00	38.16	N
ATOM	4655	CA	LEU	B	152	97.343	25.508	14.399	1.00	37.55	C
ATOM	4656	CB	LEU	B	152	97.055	24.563	15.494	1.00	38.94	C
ATOM	4657	CG	LEU	B	152	97.155	25.054	16.922	1.00	44.58	C
ATOM	4658	CD1	LEU	B	152	96.766	23.784	17.930	1.00	50.92	C
ATOM	4659	CD2	LEU	B	152	98.502	25.392	17.110	1.00	48.68	C
ATOM	4660	C	LEU	B	152	98.906	25.600	14.123	1.00	38.07	C
ATOM	4661	O	LEU	B	152	99.554	26.480	14.461	1.00	33.21	O
ATOM	4662	N	VAL	B	153	99.447	24.634	13.425	1.00	40.14	N
ATOM	4663	CA	VAL	B	153	100.880	24.549	13.230	1.00	40.88	C
ATOM	4664	CB	VAL	B	153	101.249	23.202	12.579	1.00	40.13	C
ATOM	4665	CG1	VAL	B	153	102.631	23.160	12.278	1.00	35.93	C
ATOM	4666	CG2	VAL	B	153	100.964	22.137	13.492	1.00	38.99	C
ATOM	4667	C	VAL	B	153	101.284	25.610	12.250	1.00	45.51	C
ATOM	4668	O	VAL	B	153	102.317	26.199	12.341	1.00	45.08	O
ATOM	4669	N	GLU	B	154	100.443	25.883	11.263	1.00	49.31	N
ATOM	4670	CA	GLU	B	154	100.689	26.990	10.338	1.00	49.94	C
ATOM	4671	CB	GLU	B	154	99.718	26.979	9.086	1.00	53.63	C
ATOM	4672	CG	GLU	B	154	100.017	25.820	7.966	1.00	61.63	C
ATOM	4673	CD	GLU	B	154	98.764	25.153	7.161	1.00	65.53	C
ATOM	4674	OE1	GLU	B	154	98.869	24.124	6.457	1.00	72.55	O
ATOM	4675	OE2	GLU	B	154	97.610	25.563	7.199	1.00	64.07	O
ATOM	4676	C	GLU	B	154	100.634	28.230	11.108	1.00	47.18	C
ATOM	4677	O	GLU	B	154	101.535	28.974	11.119	1.00	50.34	O
ATOM	4678	N	GLU	B	155	99.632	28.463	11.861	1.00	46.20	N
ATOM	4679	CA	GLU	B	155	99.628	29.634	12.687	1.00	46.40	C
ATOM	4680	CB	GLU	B	155	98.416	29.630	13.513	1.00	44.02	C
ATOM	4681	CG	GLU	B	155	97.338	30.143	12.751	1.00	52.37	C
ATOM	4682	CD	GLU	B	155	97.314	31.740	12.510	1.00	61.99	C
ATOM	4683	OE1	GLU	B	155	97.362	32.095	11.298	1.00	56.10	O
ATOM	4684	OE2	GLU	B	155	97.148	32.642	13.492	1.00	65.70	O
ATOM	4685	C	GLU	B	155	100.899	29.788	13.624	1.00	45.65	C
ATOM	4686	O	GLU	B	155	101.342	30.852	13.942	1.00	46.51	O
ATOM	4687	N	LEU	B	156	101.433	28.719	14.112	1.00	44.63	N
ATOM	4688	CA	LEU	B	156	102.513	28.897	15.021	1.00	44.43	C
ATOM	4689	CB	LEU	B	156	102.755	27.637	15.911	1.00	42.47	C
ATOM	4690	CG	LEU	B	156	101.648	27.187	16.880	1.00	41.93	C
ATOM	4691	CD1	LEU	B	156	102.038	25.989	17.684	1.00	46.03	C
ATOM	4692	CD2	LEU	B	156	101.291	28.219	17.930	1.00	47.74	C
ATOM	4693	C	LEU	B	156	103.653	29.293	14.133	1.00	44.17	C
ATOM	4694	O	LEU	B	156	104.544	30.058	14.454	1.00	41.78	O
ATOM	4695	N	ARG	B	157	103.622	28.791	12.941	1.00	47.67	N
ATOM	4696	CA	ARG	B	157	104.746	29.082	11.985	1.00	46.75	C
ATOM	4697	CB	ARG	B	157	104.558	28.274	10.811	1.00	44.02	C
ATOM	4698	CG	ARG	B	157	105.700	27.609	10.219	1.00	44.34	C
ATOM	4699	CD	ARG	B	157	105.121	26.920	9.000	1.00	48.85	C
ATOM	4700	NE	ARG	B	157	104.929	25.479	9.056	1.00	50.53	N
ATOM	4701	CZ	ARG	B	157	105.948	24.693	9.393	1.00	53.40	C
ATOM	4702	NH1	ARG	B	157	107.146	25.226	9.647	1.00	51.81	N
ATOM	4703	NH2	ARG	B	157	105.752	23.377	9.480	1.00	53.01	N
ATOM	4704	C	ARG	B	157	104.870	30.586	11.670	1.00	49.72	C
ATOM	4705	O	ARG	B	157	105.904	31.054	11.488	1.00	50.89	O
ATOM	4706	N	LYS	B	158	103.808	31.336	11.678	1.00	52.03	N
ATOM	4707	CA	LYS	B	158	103.851	32.755	11.419	1.00	52.77	C
ATOM	4708	CB	LYS	B	158	102.440	33.244	11.134	1.00	52.54	C
ATOM	4709	CG	LYS	B	158	101.881	32.820	9.878	1.00	52.64	C

Figure 2

ATOM	4710	CD	LYS	B	158	100.363	32.372	9.921	1.00	61.11	C
ATOM	4711	CE	LYS	B	158	99.754	32.059	8.496	1.00	71.94	C
ATOM	4712	NZ	LYS	B	158	98.626	33.123	8.183	1.00	81.39	N
ATOM	4713	C	LYS	B	158	104.411	33.485	12.572	1.00	54.51	C
ATOM	4714	O	LYS	B	158	104.855	34.529	12.494	1.00	61.71	O
ATOM	4715	N	THR	B	159	104.382	32.973	13.694	1.00	53.68	N
ATOM	4716	CA	THR	B	159	105.060	33.756	14.693	1.00	52.09	C
ATOM	4717	CB	THR	B	159	104.967	33.023	15.990	1.00	52.39	C
ATOM	4718	OG1	THR	B	159	105.495	31.714	15.813	1.00	58.41	O
ATOM	4719	CG2	THR	B	159	103.494	32.882	16.412	1.00	46.11	C
ATOM	4720	C	THR	B	159	106.456	33.937	14.425	1.00	49.47	C
ATOM	4721	O	THR	B	159	107.102	34.483	15.222	1.00	47.60	O
ATOM	4722	N	LYS	B	160	106.873	33.437	13.312	1.00	51.05	N
ATOM	4723	CA	LYS	B	160	108.178	33.663	12.887	1.00	52.48	C
ATOM	4724	CB	LYS	B	160	108.185	35.089	12.428	1.00	56.02	C
ATOM	4725	CG	LYS	B	160	107.487	35.389	11.074	1.00	63.34	C
ATOM	4726	CD	LYS	B	160	108.031	36.824	10.417	1.00	71.08	C
ATOM	4727	CE	LYS	B	160	109.474	36.651	9.757	1.00	79.11	C
ATOM	4728	NZ	LYS	B	160	110.208	38.075	9.343	1.00	85.01	N
ATOM	4729	C	LYS	B	160	109.306	33.385	13.918	1.00	50.75	C
ATOM	4730	O	LYS	B	160	110.492	33.589	13.658	1.00	49.62	O
ATOM	4731	N	ALA	B	161	109.008	32.732	14.996	1.00	48.83	N
ATOM	4732	CA	ALA	B	161	110.041	32.275	15.888	1.00	47.64	C
ATOM	4733	CB	ALA	B	161	111.138	31.860	15.274	1.00	45.23	C
ATOM	4734	C	ALA	B	161	110.384	33.228	16.921	1.00	49.53	C
ATOM	4735	O	ALA	B	161	111.321	33.055	17.542	1.00	52.07	O
ATOM	4736	N	SER	B	162	109.553	34.207	17.168	1.00	50.59	N
ATOM	4737	CA	SER	B	162	109.778	35.159	18.140	1.00	50.86	C
ATOM	4738	CB	SER	B	162	109.476	36.517	17.510	1.00	52.96	C
ATOM	4739	OG	SER	B	162	108.060	36.686	17.272	1.00	58.20	O
ATOM	4740	C	SER	B	162	108.861	35.031	19.270	1.00	49.63	C
ATOM	4741	O	SER	B	162	107.866	34.662	19.065	1.00	51.04	O
ATOM	4742	N	PRO	B	163	109.182	35.529	20.438	1.00	48.65	N
ATOM	4743	CA	PRO	B	163	108.545	35.319	21.627	1.00	46.81	C
ATOM	4744	CB	PRO	B	163	109.089	36.435	22.427	1.00	49.46	C
ATOM	4745	CG	PRO	B	163	110.376	36.617	22.010	1.00	46.20	C
ATOM	4746	CD	PRO	B	163	110.252	36.485	20.643	1.00	48.41	C
ATOM	4747	C	PRO	B	163	107.225	35.565	21.396	1.00	46.95	C
ATOM	4748	O	PRO	B	163	106.896	36.357	20.603	1.00	49.30	O
ATOM	4749	N	CYS	B	164	106.422	34.797	22.137	1.00	49.04	N
ATOM	4750	CA	CYS	B	164	105.007	34.781	22.018	1.00	44.62	C
ATOM	4751	CB	CYS	B	164	104.720	33.988	20.857	1.00	43.60	C
ATOM	4752	SG	CYS	B	164	103.455	32.773	20.911	1.00	38.18	S
ATOM	4753	C	CYS	B	164	104.202	34.267	23.135	1.00	40.76	C
ATOM	4754	O	CYS	B	164	104.678	33.612	23.793	1.00	39.64	O
ATOM	4755	N	ASP	B	165	102.969	34.709	23.313	1.00	37.54	N
ATOM	4756	CA	ASP	B	165	102.028	34.381	24.411	1.00	36.63	C
ATOM	4757	CB	ASP	B	165	101.323	35.597	25.057	1.00	31.80	C
ATOM	4758	CG	ASP	B	165	100.163	35.239	25.971	1.00	39.27	C
ATOM	4759	OD1	ASP	B	165	99.438	36.096	26.776	1.00	38.76	O
ATOM	4760	OD2	ASP	B	165	99.866	33.956	26.168	1.00	44.60	O
ATOM	4761	C	ASP	B	165	101.036	33.495	23.675	1.00	38.59	C
ATOM	4762	O	ASP	B	165	100.155	33.946	22.790	1.00	40.57	O
ATOM	4763	N	PRO	B	166	101.171	32.188	23.923	1.00	35.97	N
ATOM	4764	CA	PRO	B	166	100.400	31.141	23.213	1.00	31.62	C
ATOM	4765	CB	PRO	B	166	100.991	29.937	23.779	1.00	36.05	C
ATOM	4766	CG	PRO	B	166	101.166	30.271	25.253	1.00	34.73	C
ATOM	4767	CD	PRO	B	166	101.955	31.616	24.988	1.00	36.92	C
ATOM	4768	C	PRO	B	166	98.970	31.259	23.623	1.00	24.78	C
ATOM	4769	O	PRO	B	166	98.102	30.752	23.092	1.00	24.22	O
ATOM	4770	N	THR	B	167	98.648	32.034	24.538	1.00	21.08	N
ATOM	4771	CA	THR	B	167	97.178	31.984	24.827	1.00	19.90	C
ATOM	4772	CB	THR	B	167	96.796	33.059	25.641	1.00	18.63	C
ATOM	4773	OG1	THR	B	167	97.642	33.237	26.789	1.00	23.25	O
ATOM	4774	CG2	THR	B	167	95.619	32.880	26.098	1.00	22.87	C
ATOM	4775	C	THR	B	167	96.181	32.065	23.807	1.00	26.13	C
ATOM	4776	O	THR	B	167	95.355	31.351	23.751	1.00	37.62	O
ATOM	4777	N	PHE	B	168	96.163	32.960	22.866	1.00	30.70	N
ATOM	4778	CA	PHE	B	168	95.131	33.179	21.969	1.00	28.79	C
ATOM	4779	CB	PHE	B	168	95.403	34.531	21.286	1.00	31.91	C
ATOM	4780	CG	PHE	B	168	94.487	34.848	20.181	1.00	32.40	C
ATOM	4781	CD1	PHE	B	168	94.927	34.834	18.965	1.00	34.00	C
ATOM	4782	CE1	PHE	B	168	93.999	35.071	18.011	1.00	35.99	C
ATOM	4783	CZ	PHE	B	168	92.666	35.355	18.377	1.00	24.97	C
ATOM	4784	CE2	PHE	B	168	92.308	35.395	19.495	1.00	26.27	C
ATOM	4785	CD2	PHE	B	168	93.150	35.151	20.451	1.00	30.65	C

Figure 2

ATOM	4786	C	PHE	B	168	95.033	32.160	20.929	1.00	29.57	C
ATOM	4787	O	PHE	B	168	93.895	31.730	20.620	1.00	27.47	O
ATOM	4788	N	ILE	B	169	96.183	31.932	20.313	1.00	29.02	N
ATOM	4789	CA	ILE	B	169	96.340	30.976	19.272	1.00	27.44	C
ATOM	4790	CB	ILE	B	169	97.707	30.841	19.013	1.00	27.00	C
ATOM	4791	CG1	ILE	B	169	98.132	31.801	17.947	1.00	31.87	C
ATOM	4792	CD1	ILE	B	169	99.829	31.655	17.390	1.00	27.35	C
ATOM	4793	CG2	ILE	B	169	97.922	29.568	18.418	1.00	36.89	C
ATOM	4794	C	ILE	B	169	95.916	29.571	19.848	1.00	28.15	C
ATOM	4795	O	ILE	B	169	95.164	28.871	19.204	1.00	29.47	O
ATOM	4796	N	LEU	B	170	96.343	29.186	21.032	1.00	25.54	N
ATOM	4797	CA	LEU	B	170	95.983	27.913	21.565	1.00	22.81	C
ATOM	4798	CB	LEU	B	170	96.727	27.662	22.752	1.00	24.41	C
ATOM	4799	CG	LEU	B	170	97.814	26.702	22.726	1.00	28.75	C
ATOM	4800	CD1	LEU	B	170	98.158	26.516	21.360	1.00	29.89	C
ATOM	4801	CD2	LEU	B	170	99.047	27.075	23.534	1.00	31.78	C
ATOM	4802	C	LEU	B	170	94.578	28.060	21.983	1.00	25.41	C
ATOM	4803	O	LEU	B	170	93.966	27.141	22.357	1.00	26.24	O
ATOM	4804	N	GLY	B	171	93.966	29.215	22.055	1.00	26.86	N
ATOM	4805	CA	GLY	B	171	92.529	29.096	22.379	1.00	26.29	C
ATOM	4806	C	GLY	B	171	91.746	28.922	21.057	1.00	27.95	C
ATOM	4807	O	GLY	B	171	90.466	28.595	20.822	1.00	25.22	O
ATOM	4808	N	CYS	B	172	92.445	29.246	20.048	1.00	29.75	N
ATOM	4809	CA	CYS	B	172	91.573	29.370	18.809	1.00	34.69	C
ATOM	4810	CB	CYS	B	172	92.459	30.132	17.702	1.00	38.03	C
ATOM	4811	SG	CYS	B	172	92.228	31.865	17.740	1.00	40.36	S
ATOM	4812	C	CYS	B	172	91.256	27.977	18.251	1.00	32.91	C
ATOM	4813	O	CYS	B	172	90.246	27.725	17.837	1.00	32.86	O
ATOM	4814	N	ALA	B	173	92.248	27.099	18.380	1.00	30.46	N
ATOM	4815	CA	ALA	B	173	92.172	25.711	17.952	1.00	28.93	C
ATOM	4816	CB	ALA	B	173	93.542	25.129	18.334	1.00	31.28	C
ATOM	4817	C	ALA	B	173	90.998	24.919	18.474	1.00	25.46	C
ATOM	4818	O	ALA	B	173	90.165	24.459	17.751	1.00	25.36	O
ATOM	4819	N	PRO	B	174	90.869	24.858	19.740	1.00	23.81	N
ATOM	4820	CA	PRO	B	174	89.810	24.181	20.312	1.00	24.54	C
ATOM	4821	CB	PRO	B	174	90.139	24.114	21.780	1.00	21.43	C
ATOM	4822	CG	PRO	B	174	91.447	24.724	21.935	1.00	26.69	C
ATOM	4823	CD	PRO	B	174	91.641	25.559	20.671	1.00	25.01	C
ATOM	4824	C	PRO	B	174	88.511	24.829	20.006	1.00	26.26	C
ATOM	4825	O	PRO	B	174	87.456	24.215	19.800	1.00	27.84	O
ATOM	4826	N	CYS	B	175	88.487	26.087	19.889	1.00	30.09	N
ATOM	4827	CA	CYS	B	175	87.160	26.704	19.533	1.00	31.67	C
ATOM	4828	CB	CYS	B	175	87.252	28.198	19.567	1.00	35.10	C
ATOM	4829	SG	CYS	B	175	85.647	29.010	19.387	1.00	41.52	S
ATOM	4830	C	CYS	B	175	86.717	26.335	18.179	1.00	28.66	C
ATOM	4831	O	CYS	B	175	85.448	26.101	17.825	1.00	29.08	O
ATOM	4832	N	ASN	B	176	87.648	26.343	17.340	1.00	26.22	N
ATOM	4833	CA	ASN	B	176	87.337	25.979	15.898	1.00	27.87	C
ATOM	4834	CB	ASN	B	176	88.583	26.231	15.084	1.00	30.58	C
ATOM	4835	CG	ASN	B	176	88.384	27.164	13.862	1.00	32.62	C
ATOM	4836	OD1	ASN	B	176	87.273	27.552	13.538	1.00	32.59	O
ATOM	4837	ND2	ASN	B	176	89.567	27.321	13.046	1.00	28.60	N
ATOM	4838	C	ASN	B	176	86.927	24.479	15.783	1.00	25.44	C
ATOM	4839	O	ASN	B	176	86.092	24.080	14.996	1.00	26.43	O
ATOM	4840	N	VAL	B	177	87.486	23.658	16.577	1.00	25.03	N
ATOM	4841	CA	VAL	B	177	87.099	22.283	16.503	1.00	23.19	C
ATOM	4842	CB	VAL	B	177	87.785	21.431	17.459	1.00	22.29	C
ATOM	4843	CG1	VAL	B	177	87.062	20.155	17.601	1.00	31.48	C
ATOM	4844	CG2	VAL	B	177	89.136	21.092	17.060	1.00	20.77	C
ATOM	4845	C	VAL	B	177	85.705	22.271	16.790	1.00	23.32	C
ATOM	4846	O	VAL	B	177	84.926	21.693	16.100	1.00	22.25	O
ATOM	4847	N	ILE	B	178	85.264	22.931	17.841	1.00	27.73	N
ATOM	4848	CA	ILE	B	178	83.713	22.924	18.113	1.00	23.65	C
ATOM	4849	CB	ILE	B	178	83.352	23.588	19.385	1.00	23.56	C
ATOM	4850	CG1	ILE	B	178	83.385	22.683	20.600	1.00	27.91	C
ATOM	4851	CD1	ILE	B	178	84.643	22.611	20.791	1.00	39.44	C
ATOM	4852	CG2	ILE	B	178	81.862	23.809	19.280	1.00	26.78	C
ATOM	4853	C	ILE	B	178	83.019	23.496	16.978	1.00	22.88	C
ATOM	4854	O	ILE	B	178	81.986	23.064	16.541	1.00	25.28	O
ATOM	4855	N	CYS	B	179	83.592	24.555	16.358	1.00	28.73	N
ATOM	4856	CA	CYS	B	179	82.884	25.158	15.108	1.00	28.34	C
ATOM	4857	CB	CYS	B	179	83.619	26.319	14.513	1.00	27.25	C
ATOM	4858	SG	CYS	B	179	83.641	27.812	15.597	1.00	39.46	S
ATOM	4859	C	CYS	B	179	82.563	24.155	14.001	1.00	26.94	C
ATOM	4860	O	CYS	B	179	81.365	24.065	13.326	1.00	27.96	O
ATOM	4861	N	SER	B	180	83.574	23.371	13.821	1.00	26.66	N

Figure 2

ATOM	4862	CA	SER	B	180	83.554	22.343	12.785	1.00	25.98	C
ATOM	4863	CB	SER	B	180	84.876	21.706	12.713	1.00	24.43	C
ATOM	4864	OG	SER	B	180	84.887	21.117	11.399	1.00	32.83	O
ATOM	4865	C	SER	B	180	82.547	21.396	13.166	1.00	29.47	C
ATOM	4866	O	SER	B	180	81.666	21.163	12.415	1.00	36.80	O
ATOM	4867	N	ILE	B	181	82.535	20.809	14.358	1.00	28.88	N
ATOM	4868	CA	ILE	B	181	81.544	19.886	14.679	1.00	25.12	C
ATOM	4869	CB	ILE	B	181	81.800	19.426	16.036	1.00	26.75	C
ATOM	4870	CG1	ILE	B	181	82.979	18.451	16.033	1.00	26.17	C
ATOM	4871	CD1	ILE	B	181	83.642	18.396	17.377	1.00	30.37	C
ATOM	4872	CG2	ILE	B	181	80.692	18.673	16.527	1.00	31.53	C
ATOM	4873	C	ILE	B	181	80.188	20.461	14.614	1.00	29.49	C
ATOM	4874	O	ILE	B	181	79.166	19.696	14.333	1.00	27.23	O
ATOM	4875	N	ILE	B	182	79.973	21.776	14.971	1.00	33.16	N
ATOM	4876	CA	ILE	B	182	78.512	22.252	14.987	1.00	29.70	C
ATOM	4877	CB	ILE	B	182	78.225	23.272	15.934	1.00	30.25	C
ATOM	4878	CG1	ILE	B	182	78.932	23.134	17.335	1.00	30.01	C
ATOM	4879	CD1	ILE	B	182	78.171	22.620	18.233	1.00	31.35	C
ATOM	4880	CG2	ILE	B	182	76.862	23.502	15.947	1.00	29.01	C
ATOM	4881	C	ILE	B	182	78.094	22.769	13.627	1.00	32.50	C
ATOM	4882	O	ILE	B	182	76.959	22.440	13.168	1.00	31.00	O
ATOM	4883	N	PHE	B	183	78.944	23.571	12.959	1.00	31.69	N
ATOM	4884	CA	PHE	B	183	78.528	24.210	11.731	1.00	32.77	C
ATOM	4885	CB	PHE	B	183	79.172	25.707	11.642	1.00	34.05	C
ATOM	4886	CG	PHE	B	183	78.961	26.564	12.793	1.00	29.87	C
ATOM	4887	CD1	PHE	B	183	79.881	27.371	13.310	1.00	30.53	C
ATOM	4888	CE1	PHE	B	183	79.626	28.070	14.442	1.00	37.12	C
ATOM	4889	CZ	PHE	B	183	78.343	27.955	15.055	1.00	36.76	C
ATOM	4890	CE2	PHE	B	183	77.411	27.170	14.523	1.00	35.12	C
ATOM	4891	CD2	PHE	B	183	77.704	26.490	13.406	1.00	37.30	C
ATOM	4892	C	PHE	B	183	78.977	23.522	10.435	1.00	35.81	C
ATOM	4893	O	PHE	B	183	78.553	23.868	9.401	1.00	40.32	O
ATOM	4894	N	HIS	B	184	79.918	22.679	10.489	1.00	39.93	N
ATOM	4895	CA	HIS	B	184	80.539	21.838	9.507	1.00	46.66	C
ATOM	4896	CB	HIS	B	184	79.753	21.456	8.303	1.00	50.11	C
ATOM	4897	CG	HIS	B	184	80.318	20.269	7.565	1.00	54.75	C
ATOM	4898	ND1	HIS	B	184	80.415	20.246	6.180	1.00	61.14	N
ATOM	4899	CE1	HIS	B	184	80.901	19.060	5.806	1.00	68.11	C
ATOM	4900	NE2	HIS	B	184	81.050	18.291	6.898	1.00	71.29	N
ATOM	4901	CD2	HIS	B	184	80.692	19.017	8.013	1.00	59.57	C
ATOM	4902	C	HIS	B	184	81.829	22.169	9.092	1.00	49.83	C
ATOM	4903	O	HIS	B	184	82.592	21.295	8.762	1.00	57.32	O
ATOM	4904	N	LYS	B	185	82.114	23.436	9.117	1.00	49.19	N
ATOM	4905	CA	LYS	B	185	83.380	23.855	8.773	1.00	46.18	C
ATOM	4906	CB	LYS	B	185	82.954	24.543	7.481	1.00	52.96	C
ATOM	4907	CG	LYS	B	185	83.612	25.967	7.138	1.00	59.65	C
ATOM	4908	CD	LYS	B	185	82.778	26.639	5.936	1.00	66.28	C
ATOM	4909	CE	LYS	B	185	83.602	28.052	5.568	1.00	72.61	C
ATOM	4910	NZ	LYS	B	185	83.876	29.106	6.786	1.00	56.39	N
ATOM	4911	C	LYS	B	185	84.008	24.826	9.754	1.00	41.07	C
ATOM	4912	O	LYS	B	185	83.402	25.694	10.278	1.00	43.29	O
ATOM	4913	N	ARG	B	186	85.265	24.751	9.918	1.00	37.63	N
ATOM	4914	CA	ARG	B	186	86.025	25.682	10.690	1.00	35.62	C
ATOM	4915	CB	ARG	B	186	87.417	25.226	10.781	1.00	33.61	C
ATOM	4916	CG	ARG	B	186	88.041	25.065	9.601	1.00	29.63	C
ATOM	4917	CD	ARG	B	186	89.425	24.576	9.537	1.00	26.57	C
ATOM	4918	NE	ARG	B	186	90.297	25.092	10.546	1.00	39.46	N
ATOM	4919	CZ	ARG	B	186	91.107	26.192	10.472	1.00	47.38	C
ATOM	4920	NH1	ARG	B	186	91.071	26.904	9.429	1.00	37.49	N
ATOM	4921	NH2	ARG	B	186	91.942	26.575	11.520	1.00	48.25	N
ATOM	4922	C	ARG	B	186	86.141	27.066	10.035	1.00	39.08	C
ATOM	4923	O	ARG	B	186	85.825	27.163	8.867	1.00	38.74	O
ATOM	4924	N	PHE	B	187	86.553	28.066	10.799	1.00	39.88	N
ATOM	4925	CA	PHE	B	187	86.684	29.383	10.390	1.00	41.05	C
ATOM	4926	CB	PHE	B	187	86.225	30.372	11.376	1.00	42.80	C
ATOM	4927	CG	PHE	B	187	84.699	30.327	11.530	1.00	39.62	C
ATOM	4928	CD1	PHE	B	187	84.126	29.770	12.666	1.00	36.18	C
ATOM	4929	CE1	PHE	B	187	82.774	29.661	12.854	1.00	37.51	C
ATOM	4930	CZ	PHE	B	187	81.943	30.130	11.904	1.00	41.90	C
ATOM	4931	CE2	PHE	B	187	82.545	30.731	10.728	1.00	42.53	C
ATOM	4932	CD2	PHE	B	187	83.944	30.794	10.601	1.00	37.81	C
ATOM	4933	C	PHE	B	187	88.069	29.555	10.254	1.00	44.70	C
ATOM	4934	O	PHE	B	187	88.755	28.653	10.438	1.00	49.78	O
ATOM	4935	N	ASP	B	188	88.519	30.686	9.834	1.00	47.01	N
ATOM	4936	CA	ASP	B	188	89.940	30.985	9.574	1.00	49.09	C
ATOM	4937	CB	ASP	B	188	90.067	31.854	8.206	1.00	51.42	C

Figure 2

ATOM	4938	CG	ASP	B	188	91.498	32.240	7.865	1.00	50.74	C
ATOM	4939	OD1	ASP	B	188	92.177	32.971	8.621	1.00	57.77	O
ATOM	4940	OD2	ASP	B	188	92.086	31.801	6.880	1.00	53.72	O
ATOM	4941	C	ASP	B	188	90.193	31.905	10.769	1.00	47.39	C
ATOM	4942	O	ASP	B	188	89.268	32.691	11.099	1.00	44.15	O
ATOM	4943	N	TYR	B	189	91.369	31.829	11.383	1.00	44.98	N
ATOM	4944	CA	TYR	B	189	91.550	32.459	12.638	1.00	45.78	C
ATOM	4945	CB	TYR	B	189	92.948	32.139	13.159	1.00	46.54	C
ATOM	4946	CG	TYR	B	189	93.249	30.617	13.553	1.00	53.71	C
ATOM	4947	CD1	TYR	B	189	94.495	30.148	13.751	1.00	55.90	C
ATOM	4948	CE1	TYR	B	189	94.717	28.849	14.115	1.00	52.29	C
ATOM	4949	CZ	TYR	B	189	93.751	28.033	14.295	1.00	47.90	C
ATOM	4950	OH	TYR	B	189	93.988	26.694	14.710	1.00	48.67	O
ATOM	4951	CE2	TYR	B	189	92.580	28.420	14.099	1.00	48.21	C
ATOM	4952	CD2	TYR	B	189	92.276	29.692	13.769	1.00	51.61	C
ATOM	4953	C	TYR	B	189	91.338	33.816	12.521	1.00	47.09	C
ATOM	4954	O	TYR	B	189	91.330	34.617	13.488	1.00	53.56	O
ATOM	4955	N	LYS	B	190	91.171	34.253	11.318	1.00	52.73	N
ATOM	4956	CA	LYS	B	190	90.953	35.804	11.038	1.00	53.79	C
ATOM	4957	CB	LYS	B	190	91.672	36.202	9.866	1.00	53.51	C
ATOM	4958	CG	LYS	B	190	93.027	36.867	10.286	1.00	59.42	C
ATOM	4959	CD	LYS	B	190	93.683	37.441	8.948	1.00	72.93	C
ATOM	4960	CE	LYS	B	190	92.494	37.915	7.662	1.00	72.14	C
ATOM	4961	NZ	LYS	B	190	92.987	38.470	6.302	1.00	69.21	N
ATOM	4962	C	LYS	B	190	89.536	36.257	10.859	1.00	50.95	C
ATOM	4963	O	LYS	B	190	89.174	37.181	11.327	1.00	50.20	O
ATOM	4964	N	ASP	B	191	88.736	35.463	10.205	1.00	50.56	N
ATOM	4965	CA	ASP	B	191	87.343	35.675	10.018	1.00	47.11	C
ATOM	4966	CB	ASP	B	191	86.716	34.457	9.548	1.00	47.93	C
ATOM	4967	CG	ASP	B	191	85.361	34.682	9.302	1.00	55.14	C
ATOM	4968	OD1	ASP	B	191	84.872	34.262	8.207	1.00	58.72	O
ATOM	4969	OD2	ASP	B	191	84.694	35.380	10.137	1.00	55.89	O
ATOM	4970	C	ASP	B	191	86.694	36.198	11.087	1.00	48.48	C
ATOM	4971	O	ASP	B	191	86.691	35.809	12.056	1.00	54.95	O
ATOM	4972	N	GLN	B	192	86.021	37.254	10.965	1.00	54.15	N
ATOM	4973	CA	GLN	B	192	85.437	38.058	12.122	1.00	50.00	C
ATOM	4974	CB	GLN	B	192	84.929	39.471	11.507	1.00	49.88	C
ATOM	4975	CG	GLN	B	192	84.521	40.570	12.314	1.00	49.45	C
ATOM	4976	CD	GLN	B	192	85.600	41.008	13.384	1.00	56.50	C
ATOM	4977	OE1	GLN	B	192	86.769	41.272	13.101	1.00	51.04	O
ATOM	4978	NE2	GLN	B	192	85.118	41.075	14.674	1.00	57.54	N
ATOM	4979	C	GLN	B	192	84.355	37.421	12.813	1.00	48.10	C
ATOM	4980	O	GLN	B	192	84.099	37.836	13.992	1.00	50.64	O
ATOM	4981	N	GLN	B	193	83.591	36.561	12.166	1.00	45.32	N
ATOM	4982	CA	GLN	B	193	82.485	35.892	12.903	1.00	43.85	C
ATOM	4983	CB	GLN	B	193	81.838	34.796	12.108	1.00	45.20	C
ATOM	4984	CG	GLN	B	193	81.543	35.006	10.647	1.00	53.51	C
ATOM	4985	CD	GLN	B	193	80.833	33.763	9.866	1.00	60.90	C
ATOM	4986	OE1	GLN	B	193	79.798	33.039	10.377	1.00	50.73	O
ATOM	4987	NE2	GLN	B	193	81.407	33.510	8.591	1.00	69.24	N
ATOM	4988	C	GLN	B	193	83.210	35.136	14.071	1.00	42.67	C
ATOM	4989	O	GLN	B	193	82.773	35.167	15.279	1.00	44.75	O
ATOM	4990	N	PHE	B	194	84.346	34.548	13.693	1.00	36.24	N
ATOM	4991	CA	PHE	B	194	85.118	33.773	14.489	1.00	34.67	C
ATOM	4992	CB	PHE	B	194	86.211	33.140	13.736	1.00	35.28	C
ATOM	4993	CG	PHE	B	194	87.037	32.264	14.531	1.00	36.00	C
ATOM	4994	CD1	PHE	B	194	88.361	32.487	14.631	1.00	33.55	C
ATOM	4995	CE1	PHE	B	194	89.156	31.604	15.425	1.00	38.73	C
ATOM	4996	CZ	PHE	B	194	88.525	30.570	16.211	1.00	34.04	C
ATOM	4997	CE2	PHE	B	194	87.214	30.406	16.125	1.00	30.12	C
ATOM	4998	CD2	PHE	B	194	86.460	31.218	15.240	1.00	30.17	C
ATOM	4999	C	PHE	B	194	85.546	34.510	15.574	1.00	37.13	C
ATOM	5000	O	PHE	B	194	85.245	34.185	16.814	1.00	42.91	O
ATOM	5001	N	LEU	B	195	86.225	35.563	15.296	1.00	40.69	N
ATOM	5002	CA	LEU	B	195	86.752	36.495	16.407	1.00	38.12	C
ATOM	5003	CB	LEU	B	195	87.573	37.613	15.992	1.00	32.00	C
ATOM	5004	CG	LEU	B	195	88.737	37.164	15.351	1.00	38.95	C
ATOM	5005	CD1	LEU	B	195	88.942	37.720	14.010	1.00	45.07	C
ATOM	5006	CD2	LEU	B	195	89.933	37.354	16.089	1.00	46.27	C
ATOM	5007	C	LEU	B	195	85.617	36.958	17.318	1.00	40.11	C
ATOM	5008	O	LEU	B	195	85.841	37.035	18.578	1.00	38.57	O
ATOM	5009	N	ASN	B	196	84.427	37.221	16.781	1.00	37.74	N
ATOM	5010	CA	ASN	B	196	83.466	37.607	17.824	1.00	40.31	C
ATOM	5011	CB	ASN	B	196	82.111	38.277	17.349	1.00	42.69	C
ATOM	5012	CG	ASN	B	196	82.314	39.353	16.380	1.00	40.11	C
ATOM	5013	OD1	ASN	B	196	81.520	39.377	15.404	1.00	38.61	O

164/514

Figure 2

ATOM	5014	ND2	ASN	B	196	83.463	40.206	16.550	1.00	36.68	N
ATOM	5015	C	ASN	B	196	83.076	36.596	18.807	1.00	38.99	C
ATOM	5016	O	ASN	B	196	83.122	36.819	19.892	1.00	42.85	O
ATOM	5017	N	LEU	B	197	82.745	35.429	18.370	1.00	41.46	N
ATOM	5018	CA	LEU	B	197	82.505	34.250	19.190	1.00	38.53	C
ATOM	5019	CB	LEU	B	197	82.509	33.131	18.251	1.00	41.95	C
ATOM	5020	CG	LEU	B	197	82.272	31.731	18.895	1.00	45.89	C
ATOM	5021	CD1	LEU	B	197	81.231	32.068	19.915	1.00	50.50	C
ATOM	5022	CD2	LEU	B	197	81.786	30.571	17.775	1.00	46.48	C
ATOM	5023	C	LEU	B	197	83.653	34.044	20.131	1.00	38.42	C
ATOM	5024	O	LEU	B	197	83.583	33.822	21.309	1.00	36.89	O
ATOM	5025	N	MET	B	198	84.810	34.088	19.637	1.00	39.61	N
ATOM	5026	CA	MET	B	198	85.890	33.814	20.623	1.00	42.01	C
ATOM	5027	CB	MET	B	198	87.095	33.806	19.796	1.00	44.36	C
ATOM	5028	CG	MET	B	198	88.276	33.448	20.339	1.00	51.78	C
ATOM	5029	SD	MET	B	198	88.603	32.026	19.873	1.00	49.12	S
ATOM	5030	CE	MET	B	198	87.917	31.324	21.376	1.00	49.40	C
ATOM	5031	C	MET	B	198	85.963	34.796	21.761	1.00	43.73	C
ATOM	5032	O	MET	B	198	86.285	34.508	23.024	1.00	41.99	O
ATOM	5033	N	GLU	B	199	85.538	36.015	21.407	1.00	45.98	N
ATOM	5034	CA	GLU	B	199	85.529	37.189	22.371	1.00	43.95	C
ATOM	5035	CB	GLU	B	199	85.275	38.473	21.562	1.00	46.58	C
ATOM	5036	CG	GLU	B	199	85.010	39.820	22.299	1.00	50.97	C
ATOM	5037	CD	GLU	B	199	84.790	40.965	21.307	1.00	61.67	C
ATOM	5038	OE1	GLU	B	199	85.755	41.203	20.467	1.00	59.01	O
ATOM	5039	OE2	GLU	B	199	83.663	41.659	21.326	1.00	67.58	O
ATOM	5040	C	GLU	B	199	84.465	37.000	23.406	1.00	40.26	C
ATOM	5041	O	GLU	B	199	84.661	37.096	24.638	1.00	42.05	O
ATOM	5042	N	LYS	B	200	83.303	36.796	22.954	1.00	36.85	N
ATOM	5043	CA	LYS	B	200	82.317	36.655	23.921	1.00	37.38	C
ATOM	5044	CB	LYS	B	200	81.074	36.432	23.126	1.00	38.11	C
ATOM	5045	CG	LYS	B	200	80.627	37.492	22.395	1.00	37.64	C
ATOM	5046	CD	LYS	B	200	80.147	38.651	23.240	1.00	44.15	C
ATOM	5047	CE	LYS	B	200	80.499	39.950	22.765	1.00	46.55	C
ATOM	5048	NZ	LYS	B	200	80.709	40.041	21.232	1.00	51.91	N
ATOM	5049	C	LYS	B	200	82.654	35.446	24.905	1.00	37.41	C
ATOM	5050	O	LYS	B	200	82.318	35.520	26.185	1.00	38.93	O
ATOM	5051	N	LEU	B	201	83.307	34.320	24.382	1.00	34.66	N
ATOM	5052	CA	LEU	B	201	83.674	33.200	25.277	1.00	31.70	C
ATOM	5053	CB	LEU	B	201	84.248	32.037	24.573	1.00	31.13	C
ATOM	5054	CG	LEU	B	201	83.171	31.287	23.748	1.00	38.52	C
ATOM	5055	CD1	LEU	B	201	83.720	30.318	22.783	1.00	33.75	C
ATOM	5056	CD2	LEU	B	201	82.086	30.619	24.462	1.00	32.68	C
ATOM	5057	C	LEU	B	201	84.741	33.654	26.220	1.00	31.23	C
ATOM	5058	O	LEU	B	201	84.790	33.339	27.265	1.00	26.42	O
ATOM	5059	N	ASN	B	202	85.693	34.460	25.777	1.00	37.17	N
ATOM	5060	CA	ASN	B	202	86.699	34.860	26.667	1.00	36.03	C
ATOM	5061	CB	ASN	B	202	87.770	35.458	25.971	1.00	37.73	C
ATOM	5062	CG	ASN	B	202	88.500	34.563	25.097	1.00	39.75	C
ATOM	5063	OD1	ASN	B	202	89.095	35.076	24.082	1.00	43.17	O
ATOM	5064	ND2	ASN	B	202	88.647	33.306	25.503	1.00	34.56	N
ATOM	5065	C	ASN	B	202	86.221	35.851	27.644	1.00	39.18	C
ATOM	5066	O	ASN	B	202	86.619	35.778	28.840	1.00	41.32	O
ATOM	5067	N	GLU	B	203	85.300	36.714	27.293	1.00	39.01	N
ATOM	5068	CA	GLU	B	203	84.898	37.672	28.287	1.00	38.41	C
ATOM	5069	CB	GLU	B	203	83.899	38.571	27.494	1.00	40.22	C
ATOM	5070	CG	GLU	B	203	83.602	39.889	28.200	1.00	51.10	C
ATOM	5071	CD	GLU	B	203	82.339	40.551	27.725	1.00	59.83	C
ATOM	5072	OE1	GLU	B	203	82.095	40.669	26.366	1.00	57.64	O
ATOM	5073	OE2	GLU	B	203	81.653	40.959	28.775	1.00	61.55	O
ATOM	5074	C	GLU	B	203	84.246	36.931	29.436	1.00	38.30	C
ATOM	5075	O	GLU	B	203	84.468	37.159	30.637	1.00	42.31	O
ATOM	5076	N	ASN	B	204	83.350	36.069	29.095	1.00	38.76	N
ATOM	5077	CA	ASN	B	204	82.710	35.198	30.030	1.00	39.81	C
ATOM	5078	CB	ASN	B	204	81.877	34.259	29.290	1.00	39.37	C
ATOM	5079	CG	ASN	B	204	80.522	34.776	29.005	1.00	44.17	C
ATOM	5080	OD1	ASN	B	204	79.625	34.032	28.587	1.00	49.17	O
ATOM	5081	ND2	ASN	B	204	80.297	36.032	29.255	1.00	45.28	N
ATOM	5082	C	ASN	B	204	83.771	34.466	30.916	1.00	39.28	C
ATOM	5083	O	ASN	B	204	83.601	34.333	32.123	1.00	39.18	O
ATOM	5084	N	ILE	B	205	84.941	34.107	30.436	1.00	38.30	N
ATOM	5085	CA	ILE	B	205	85.822	33.347	31.355	1.00	40.02	C
ATOM	5086	CB	ILE	B	205	86.996	32.784	30.599	1.00	41.30	C
ATOM	5087	CG1	ILE	B	205	86.444	31.690	29.822	1.00	37.05	C
ATOM	5088	CD1	ILE	B	205	87.474	31.659	28.585	1.00	45.48	C
ATOM	5089	CG2	ILE	B	205	88.011	32.202	31.318	1.00	40.70	C

165/514

Figure 2

ATOM	5090	C	ILE B 205	86.279	34.252	32.271	1.00	41.83	C
ATOM	5091	O	ILE B 205	86.409	33.972	33.442	1.00	46.84	O
ATOM	5092	N	GLU B 206	86.669	35.402	31.780	1.00	44.78	N
ATOM	5093	CA	GLU B 206	87.169	36.458	32.686	1.00	43.51	C
ATOM	5094	CB	GLU B 206	87.619	37.576	31.875	1.00	41.31	C
ATOM	5095	CG	GLU B 206	88.006	38.661	32.796	1.00	57.30	C
ATOM	5096	CD	GLU B 206	88.503	39.960	32.123	1.00	67.77	C
ATOM	5097	OE1	GLU B 206	88.458	41.036	32.843	1.00	74.34	O
ATOM	5098	OE2	GLU B 206	88.951	39.863	31.005	1.00	70.69	O
ATOM	5099	C	GLU B 206	86.073	36.847	33.689	1.00	43.07	C
ATOM	5100	O	GLU B 206	86.217	36.793	34.918	1.00	41.75	O
ATOM	5101	N	ILE B 207	84.918	37.241	33.215	1.00	41.17	N
ATOM	5102	CA	ILE B 207	83.973	37.549	34.340	1.00	42.23	C
ATOM	5103	CB	ILE B 207	82.500	37.771	33.835	1.00	43.47	C
ATOM	5104	CG1	ILE B 207	82.423	39.141	33.167	1.00	41.32	C
ATOM	5105	CD1	ILE B 207	81.467	39.129	31.960	1.00	47.79	C
ATOM	5106	CG2	ILE B 207	81.555	37.589	34.904	1.00	40.73	C
ATOM	5107	C	ILE B 207	83.949	36.378	35.336	1.00	42.48	C
ATOM	5108	O	ILE B 207	83.978	36.550	36.519	1.00	45.93	O
ATOM	5109	N	LEU B 208	83.876	35.136	34.921	1.00	41.51	N
ATOM	5110	CA	LEU B 208	83.598	34.063	35.911	1.00	40.38	C
ATOM	5111	CB	LEU B 208	83.244	32.856	35.201	1.00	35.11	C
ATOM	5112	CG	LEU B 208	81.908	32.952	34.822	1.00	37.51	C
ATOM	5113	CD1	LEU B 208	81.401	31.999	33.979	1.00	36.32	C
ATOM	5114	CD2	LEU B 208	81.121	32.979	35.950	1.00	42.80	C
ATOM	5115	C	LEU B 208	84.801	33.675	36.774	1.00	44.71	C
ATOM	5116	O	LEU B 208	84.620	32.830	37.664	1.00	46.25	O
ATOM	5117	N	SER B 209	85.999	34.215	36.486	1.00	45.48	N
ATOM	5118	CA	SER B 209	87.156	33.945	37.247	1.00	47.28	C
ATOM	5119	CB	SER B 209	88.252	33.802	36.341	1.00	46.17	C
ATOM	5120	OG	SER B 209	88.311	34.842	35.449	1.00	56.62	C
ATOM	5121	C	SER B 209	87.524	35.034	38.337	1.00	52.92	C
ATOM	5122	O	SER B 209	88.668	35.189	38.773	1.00	54.76	O
ATOM	5123	N	SER B 210	86.557	35.779	38.780	1.00	55.45	N
ATOM	5124	CA	SER B 210	86.715	36.765	39.775	1.00	57.71	C
ATOM	5125	CB	SER B 210	85.682	37.960	39.582	1.00	59.65	C
ATOM	5126	OG	SER B 210	86.290	38.854	38.527	1.00	74.31	C
ATOM	5127	C	SER B 210	86.465	36.267	41.057	1.00	55.09	C
ATOM	5128	O	SER B 210	85.474	35.855	41.338	1.00	57.28	O
ATOM	5129	N	PRO B 211	87.419	36.359	41.911	1.00	54.81	N
ATOM	5130	CA	PRO B 211	87.193	35.887	43.220	1.00	54.25	C
ATOM	5131	CB	PRO B 211	88.393	36.366	43.876	1.00	54.98	C
ATOM	5132	CG	PRO B 211	89.359	36.251	42.743	1.00	54.94	C
ATOM	5133	CD	PRO B 211	88.762	36.919	41.734	1.00	51.62	C
ATOM	5134	C	PRO B 211	85.982	36.426	43.832	1.00	54.02	C
ATOM	5135	O	PRO B 211	85.344	36.004	44.635	1.00	53.81	O
ATOM	5136	N	TRP B 212	85.530	37.429	43.304	1.00	57.94	N
ATOM	5137	CA	TRP B 212	84.402	37.993	43.929	1.00	59.87	C
ATOM	5138	CB	TRP B 212	84.467	39.620	43.833	1.00	63.13	C
ATOM	5139	CG	TRP B 212	83.404	40.486	43.323	1.00	70.30	C
ATOM	5140	CD1	TRP B 212	83.066	40.711	42.006	1.00	80.82	C
ATOM	5141	NE1	TRP B 212	82.045	41.610	41.874	1.00	79.60	N
ATOM	5142	CE2	TRP B 212	81.723	42.015	43.150	1.00	88.03	C
ATOM	5143	CD2	TRP B 212	82.583	41.318	44.079	1.00	80.97	C
ATOM	5144	CE3	TRP B 212	82.460	41.587	45.489	1.00	83.31	C
ATOM	5145	C23	TRP B 212	81.484	42.563	45.966	1.00	82.83	C
ATOM	5146	CH2	TRP B 212	80.662	43.230	45.055	1.00	91.35	C
ATOM	5147	C22	TRP B 212	80.752	42.994	43.602	1.00	94.54	C
ATOM	5148	C	TRP B 212	83.267	37.253	43.628	1.00	57.57	C
ATOM	5149	O	TRP B 212	82.275	37.407	44.242	1.00	59.49	O
ATOM	5150	N	ILE B 213	83.383	36.247	42.820	1.00	56.92	N
ATOM	5151	CA	ILE B 213	82.141	35.538	42.433	1.00	54.05	C
ATOM	5152	CB	ILE B 213	82.414	34.610	41.304	1.00	52.51	C
ATOM	5153	CG1	ILE B 213	82.455	35.268	40.018	1.00	53.47	C
ATOM	5154	CD1	ILE B 213	81.170	35.570	39.418	1.00	50.39	C
ATOM	5155	CG2	ILE B 213	81.210	33.634	41.039	1.00	56.73	C
ATOM	5156	C	ILE B 213	81.629	34.659	43.539	1.00	55.58	C
ATOM	5157	O	ILE B 213	80.486	34.273	43.677	1.00	57.97	O
ATOM	5158	N	GLN B 214	82.506	34.201	44.358	1.00	55.36	N
ATOM	5159	CA	GLN B 214	82.104	33.329	45.405	1.00	52.57	C
ATOM	5160	CB	GLN B 214	83.416	32.663	45.916	1.00	53.68	C
ATOM	5161	CG	GLN B 214	83.280	31.211	46.331	1.00	60.81	C
ATOM	5162	CD	GLN B 214	82.380	30.476	45.370	1.00	68.03	C
ATOM	5163	OE1	GLN B 214	82.616	30.515	44.182	1.00	73.32	O
ATOM	5164	NE2	GLN B 214	81.299	29.875	45.882	1.00	68.73	N
ATOM	5165	C	GLN B 214	81.259	34.091	46.489	1.00	47.59	C

Figure 2

ATOM	5166	O	GLN	B	214	80.419	33.574	47.127	1.00	45.61	O
ATOM	5167	N	VAL	B	215	81.510	35.337	46.684	1.00	47.01	N
ATOM	5168	CA	VAL	B	215	80.660	36.134	47.521	1.00	48.86	C
ATOM	5169	CB	VAL	B	215	80.942	37.555	47.273	1.00	51.79	C
ATOM	5170	CG1	VAL	B	215	80.303	38.472	48.228	1.00	52.35	C
ATOM	5171	CG2	VAL	B	215	82.421	37.785	47.372	1.00	58.11	C
ATOM	5172	C	VAL	B	215	79.238	35.938	47.169	1.00	46.22	C
ATOM	5173	O	VAL	B	215	78.471	35.637	47.923	1.00	48.67	O
ATOM	5174	N	TYR	B	216	78.897	35.961	45.938	1.00	48.17	N
ATOM	5175	CA	TYR	B	216	77.529	35.681	45.478	1.00	46.93	C
ATOM	5176	CB	TYR	B	216	77.378	35.733	44.027	1.00	45.34	C
ATOM	5177	CG	TYR	B	216	77.509	37.084	43.325	1.00	51.31	C
ATOM	5178	CD1	TYR	B	216	76.668	38.076	43.619	1.00	54.83	C
ATOM	5179	CE1	TYR	B	216	76.813	39.309	43.005	1.00	58.83	C
ATOM	5180	CZ	TYR	B	216	77.794	39.502	42.112	1.00	56.28	C
ATOM	5181	OH	TYR	B	216	77.814	40.767	41.590	1.00	64.06	O
ATOM	5182	CE2	TYR	B	216	78.638	38.494	41.774	1.00	48.13	C
ATOM	5183	CD2	TYR	B	216	78.494	37.340	42.377	1.00	50.58	C
ATOM	5184	C	TYR	B	216	77.065	34.364	45.876	1.00	48.53	C
ATOM	5185	O	TYR	B	216	75.922	34.213	46.218	1.00	51.99	O
ATOM	5186	N	ASN	B	217	77.895	33.340	45.890	1.00	47.71	N
ATOM	5187	CA	ASN	B	217	77.388	32.067	46.241	1.00	45.99	C
ATOM	5188	CB	ASN	B	217	78.387	30.977	45.855	1.00	46.40	C
ATOM	5189	CG	ASN	B	217	78.436	30.743	44.349	1.00	43.33	C
ATOM	5190	OD1	ASN	B	217	77.532	31.108	43.617	1.00	38.06	O
ATOM	5191	ND2	ASN	B	217	79.579	30.179	43.914	1.00	47.56	N
ATOM	5192	C	ASN	B	217	77.087	31.968	47.663	1.00	48.88	C
ATOM	5193	O	ASN	B	217	76.269	31.152	48.063	1.00	47.81	O
ATOM	5194	N	ASN	B	218	77.716	32.808	48.469	1.00	49.23	N
ATOM	5195	CA	ASN	B	218	77.379	32.673	49.824	1.00	50.73	C
ATOM	5196	CB	ASN	B	218	78.560	33.187	50.684	1.00	55.39	C
ATOM	5197	CG	ASN	B	218	79.648	32.197	50.785	1.00	57.82	C
ATOM	5198	OD1	ASN	B	218	79.444	31.086	51.420	1.00	61.24	O
ATOM	5199	ND2	ASN	B	218	80.793	32.543	50.166	1.00	46.86	N
ATOM	5200	C	ASN	B	218	76.214	33.597	50.152	1.00	51.14	C
ATOM	5201	O	ASN	B	218	75.313	33.244	51.051	1.00	50.02	O
ATOM	5202	N	PHE	B	219	76.215	34.764	49.478	1.00	45.17	N
ATOM	5203	CA	PHE	B	219	75.252	35.624	49.766	1.00	43.17	C
ATOM	5204	CB	PHE	B	219	76.001	36.790	50.232	1.00	46.41	C
ATOM	5205	CG	PHE	B	219	76.926	36.571	51.368	1.00	48.23	C
ATOM	5206	CD1	PHE	B	219	78.110	37.301	51.370	1.00	53.43	C
ATOM	5207	CE1	PHE	B	219	79.046	37.249	52.436	1.00	59.73	C
ATOM	5208	CZ	PHE	B	219	78.797	36.429	53.519	1.00	56.38	C
ATOM	5209	CE2	PHE	B	219	77.544	35.642	53.526	1.00	61.32	C
ATOM	5210	CD2	PHE	B	219	76.621	35.754	52.397	1.00	51.71	C
ATOM	5211	C	PHE	B	219	74.374	36.003	48.531	1.00	43.72	C
ATOM	5212	O	PHE	B	219	74.347	37.133	48.085	1.00	44.71	O
ATOM	5213	N	PRO	B	220	73.603	35.086	48.002	1.00	41.46	N
ATOM	5214	CA	PRO	B	220	72.834	35.313	46.840	1.00	41.38	C
ATOM	5215	CB	PRO	B	220	71.780	34.218	46.938	1.00	43.44	C
ATOM	5216	CG	PRO	B	220	71.810	33.641	48.319	1.00	37.54	C
ATOM	5217	CD	PRO	B	220	73.237	33.797	48.605	1.00	41.05	C
ATOM	5218	C	PRO	B	220	72.103	36.609	46.832	1.00	45.40	C
ATOM	5219	O	PRO	B	220	71.790	37.211	45.844	1.00	51.16	O
ATOM	5220	N	ALA	B	221	71.784	37.188	47.911	1.00	46.21	N
ATOM	5221	CA	ALA	B	221	71.107	38.430	47.678	1.00	44.89	C
ATOM	5222	CB	ALA	B	221	70.686	38.922	49.158	1.00	49.67	C
ATOM	5223	C	ALA	B	221	72.043	39.442	47.199	1.00	43.68	C
ATOM	5224	O	ALA	B	221	71.527	40.254	46.773	1.00	46.61	O
ATOM	5225	N	LEU	B	222	73.340	39.493	47.292	1.00	41.22	N
ATOM	5226	CA	LEU	B	222	74.073	40.609	46.764	1.00	41.29	C
ATOM	5227	CB	LEU	B	222	75.580	40.385	47.095	1.00	43.94	C
ATOM	5228	CG	LEU	B	222	75.965	40.542	48.560	1.00	52.58	C
ATOM	5229	CD1	LEU	B	222	77.337	39.937	48.799	1.00	55.74	C
ATOM	5230	CD2	LEU	B	222	75.929	42.012	48.942	1.00	57.36	C
ATOM	5231	C	LEU	B	222	73.974	40.664	45.263	1.00	41.92	C
ATOM	5232	O	LEU	B	222	74.368	41.603	44.540	1.00	39.34	O
ATOM	5233	N	LEU	B	223	73.274	39.617	44.783	1.00	44.50	N
ATOM	5234	CA	LEU	B	223	73.080	39.577	43.330	1.00	47.12	C
ATOM	5235	CB	LEU	B	223	72.481	38.255	42.878	1.00	49.19	C
ATOM	5236	CG	LEU	B	223	73.356	37.016	42.806	1.00	47.55	C
ATOM	5237	CD1	LEU	B	223	72.504	35.752	42.776	1.00	43.49	C
ATOM	5238	CD2	LEU	B	223	74.226	37.078	41.553	1.00	42.66	C
ATOM	5239	C	LEU	B	223	72.147	40.771	42.921	1.00	49.39	C
ATOM	5240	O	LEU	B	223	72.595	41.679	42.145	1.00	54.95	O
ATOM	5241	N	ASP	B	224	71.097	40.778	43.719	1.00	51.24	N

167/514

Figure 2

ATOM	5242	CA	ASP	B	224	69.865	41.598	43.605	1.00	48.49	C
ATOM	5243	CB	ASP	B	224	68.782	41.316	44.576	1.00	50.55	C
ATOM	5244	CG	ASP	B	224	67.690	40.367	44.220	1.00	51.62	C
ATOM	5245	OD1	ASP	B	224	67.333	40.085	43.069	1.00	54.10	O
ATOM	5246	OD2	ASP	B	224	67.103	39.804	45.202	1.00	54.50	O
ATOM	5247	C	ASP	B	224	70.289	43.035	43.572	1.00	47.89	C
ATOM	5248	O	ASP	B	224	71.032	43.479	42.698	1.00	52.78	O
ATOM	5249	N	TYR	B	225	72.340	43.278	44.395	1.00	56.51	N
ATOM	5250	CA	TYR	B	225	72.613	44.704	44.480	1.00	57.05	C
ATOM	5251	CB	TYR	B	225	72.988	45.104	45.931	1.00	57.56	C
ATOM	5252	CG	TYR	B	225	71.818	45.100	46.983	1.00	60.78	C
ATOM	5253	CD1	TYR	B	225	71.404	43.958	47.597	1.00	67.95	C
ATOM	5254	CE1	TYR	B	225	70.403	43.945	48.585	1.00	67.33	C
ATOM	5255	CZ	TYR	B	225	69.792	45.136	48.919	1.00	70.24	C
ATOM	5256	OH	TYR	B	225	68.767	45.155	49.931	1.00	65.29	O
ATOM	5257	CE2	TYR	B	225	70.226	46.263	48.265	1.00	64.59	C
ATOM	5258	CD2	TYR	B	225	71.218	46.222	47.373	1.00	61.98	C
ATOM	5259	C	TYR	B	225	73.794	44.893	43.732	1.00	58.10	C
ATOM	5260	O	TYR	B	225	74.704	45.644	44.138	1.00	64.90	O
ATOM	5261	N	PHE	B	226	73.989	44.135	42.761	1.00	57.03	N
ATOM	5262	CA	PHE	B	226	75.130	44.386	41.891	1.00	58.47	C
ATOM	5263	CB	PHE	B	226	76.386	43.839	42.458	1.00	59.49	C
ATOM	5264	CG	PHE	B	226	76.840	44.517	43.670	1.00	64.82	C
ATOM	5265	CD1	PHE	B	226	76.437	44.087	44.915	1.00	67.88	C
ATOM	5266	CE1	PHE	B	226	76.845	44.721	46.074	1.00	67.71	C
ATOM	5267	CZ	PHE	B	226	77.658	45.755	45.937	1.00	72.46	C
ATOM	5268	CE2	PHE	B	226	78.109	46.183	44.669	1.00	74.42	C
ATOM	5269	GD2	PHE	B	226	77.700	45.562	43.556	1.00	71.61	C
ATOM	5270	C	PHE	B	226	74.767	43.494	40.733	1.00	56.84	C
ATOM	5271	O	PHE	B	226	75.315	42.481	40.754	1.00	58.55	O
ATOM	5272	N	PRO	B	227	73.833	43.776	39.869	1.00	52.80	N
ATOM	5273	CA	PRO	B	227	73.487	42.853	38.806	1.00	52.26	C
ATOM	5274	CB	PRO	B	227	72.069	43.306	38.325	1.00	51.60	C
ATOM	5275	CG	PRO	B	227	71.643	44.361	39.379	1.00	58.42	C
ATOM	5276	CD	PRO	B	227	73.013	44.974	39.844	1.00	56.02	C
ATOM	5277	C	PRO	B	227	74.449	42.824	37.642	1.00	48.52	C
ATOM	5278	O	PRO	B	227	74.545	42.079	36.810	1.00	47.14	O
ATOM	5279	N	GLY	B	228	75.267	43.743	37.729	1.00	46.29	N
ATOM	5280	CA	GLY	B	228	76.141	43.912	36.670	1.00	46.97	C
ATOM	5281	C	GLY	B	228	76.791	42.593	36.279	1.00	46.98	C
ATOM	5282	O	GLY	B	228	76.813	42.297	35.104	1.00	49.19	O
ATOM	5283	N	THR	B	229	77.362	41.755	37.132	1.00	48.09	N
ATOM	5284	CA	THR	B	229	77.865	40.366	36.629	1.00	45.93	C
ATOM	5285	CB	THR	B	229	78.568	39.784	37.821	1.00	45.81	C
ATOM	5286	OG1	THR	B	229	79.870	40.428	37.903	1.00	56.19	O
ATOM	5287	CG2	THR	B	229	78.873	38.312	37.684	1.00	45.75	C
ATOM	5288	C	THR	B	229	76.690	39.569	36.369	1.00	44.32	C
ATOM	5289	O	THR	B	229	75.877	39.523	37.246	1.00	52.57	O
ATOM	5290	N	HIS	B	230	76.502	38.961	35.294	1.00	40.43	N
ATOM	5291	CA	HIS	B	230	75.299	38.322	35.138	1.00	43.63	C
ATOM	5292	CB	HIS	B	230	74.612	37.764	36.323	1.00	41.10	C
ATOM	5293	CG	HIS	B	230	73.402	38.389	36.720	1.00	48.59	C
ATOM	5294	ND1	HIS	B	230	72.626	37.881	37.750	1.00	54.49	N
ATOM	5295	CE1	HIS	B	230	71.610	38.705	38.042	1.00	52.59	C
ATOM	5296	NE2	HIS	B	230	71.688	39.751	37.256	1.00	61.98	N
ATOM	5297	CD2	HIS	B	230	72.798	39.545	36.365	1.00	61.81	C
ATOM	5298	C	HIS	B	230	74.419	38.883	34.132	1.00	47.69	C
ATOM	5299	O	HIS	B	230	73.778	38.108	33.332	1.00	50.63	O
ATOM	5300	N	ASN	B	231	74.410	40.191	34.029	1.00	47.83	N
ATOM	5301	CA	ASN	B	231	73.672	40.839	33.069	1.00	44.61	C
ATOM	5302	CB	ASN	B	231	73.482	42.334	33.412	1.00	45.64	C
ATOM	5303	CG	ASN	B	231	72.279	42.591	34.222	1.00	44.32	C
ATOM	5304	OD1	ASN	B	231	71.561	41.765	34.385	1.00	46.63	O
ATOM	5305	ND2	ASN	B	231	72.123	43.810	34.796	1.00	52.44	N
ATOM	5306	C	ASN	B	231	74.707	40.635	31.982	1.00	44.91	C
ATOM	5307	O	ASN	B	231	74.353	40.274	30.952	1.00	47.01	O
ATOM	5308	N	LYS	B	232	76.027	40.809	32.177	1.00	43.74	N
ATOM	5309	CA	LYS	B	232	76.894	40.626	31.076	1.00	44.56	C
ATOM	5310	CB	LYS	B	232	78.301	41.020	31.390	1.00	45.26	C
ATOM	5311	CG	LYS	B	232	78.516	42.334	31.825	1.00	52.29	C
ATOM	5312	CD	LYS	B	232	79.301	42.383	33.262	1.00	57.94	C
ATOM	5313	CE	LYS	B	232	80.955	42.726	33.235	1.00	58.85	C
ATOM	5314	NZ	LYS	B	232	81.679	42.559	34.634	1.00	53.59	N
ATOM	5315	C	LYS	B	232	76.881	39.039	30.605	1.00	45.40	C
ATOM	5316	O	LYS	B	232	76.940	38.730	29.393	1.00	50.82	O
ATOM	5317	N	LEU	B	233	76.794	38.100	31.519	1.00	40.62	N

Figure 2

ATOM	5318	CA	LEU	B	233	76.827	36.782	31.146	1.00	39.19	C
ATOM	5319	CB	LEU	B	233	76.838	35.927	32.370	1.00	39.77	C
ATOM	5320	CG	LEU	B	233	78.130	36.008	33.116	1.00	38.26	C
ATOM	5321	CD1	LEU	B	233	78.084	35.349	34.493	1.00	32.84	C
ATOM	5322	CD2	LEU	B	233	79.192	35.362	32.173	1.00	38.08	C
ATOM	5323	C	LEU	B	233	75.605	36.584	30.344	1.00	40.96	C
ATOM	5324	O	LEU	B	233	75.675	36.027	29.218	1.00	40.48	O
ATOM	5325	N	LEU	B	234	74.458	37.054	30.876	1.00	42.83	N
ATOM	5326	CA	LEU	B	234	73.153	36.978	30.112	1.00	40.11	C
ATOM	5327	CB	LEU	B	234	72.034	37.593	30.783	1.00	37.95	C
ATOM	5328	CG	LEU	B	234	71.490	36.628	31.824	1.00	40.68	C
ATOM	5329	CD1	LEU	B	234	70.506	37.228	32.691	1.00	43.89	C
ATOM	5330	CD2	LEU	B	234	70.951	35.472	31.296	1.00	44.72	C
ATOM	5331	C	LEU	B	234	73.296	37.518	28.741	1.00	40.31	C
ATOM	5332	O	LEU	B	234	72.899	36.821	27.748	1.00	42.30	O
ATOM	5333	N	LYS	B	235	73.927	38.653	28.660	1.00	38.92	N
ATOM	5334	CA	LYS	B	235	73.979	39.329	27.451	1.00	40.97	C
ATOM	5335	CB	LYS	B	235	74.467	40.775	27.684	1.00	43.64	C
ATOM	5336	CG	LYS	B	235	74.881	41.536	26.572	1.00	52.59	C
ATOM	5337	CD	LYS	B	235	75.693	42.903	26.700	1.00	60.99	C
ATOM	5338	CE	LYS	B	235	74.705	44.173	26.932	1.00	64.49	C
ATOM	5339	NZ	LYS	B	235	74.270	44.684	28.389	1.00	55.78	N
ATOM	5340	C	LYS	B	235	74.758	38.591	26.554	1.00	41.14	C
ATOM	5341	O	LYS	B	235	74.391	38.248	25.387	1.00	44.63	O
ATOM	5342	N	ASN	B	236	75.901	38.250	27.036	1.00	42.45	N
ATOM	5343	CA	ASN	B	236	76.874	37.523	26.152	1.00	39.52	C
ATOM	5344	CB	ASN	B	236	78.085	37.328	26.935	1.00	40.76	C
ATOM	5345	CG	ASN	B	236	78.919	38.525	26.872	1.00	41.69	C
ATOM	5346	OD1	ASN	B	236	80.021	38.566	27.314	1.00	46.06	O
ATOM	5347	ND2	ASN	B	236	78.439	39.451	26.230	1.00	42.69	N
ATOM	5348	C	ASN	B	236	76.308	36.224	25.674	1.00	38.42	C
ATOM	5349	O	ASN	B	236	76.394	35.950	24.536	1.00	37.64	O
ATOM	5350	N	VAL	B	237	75.609	35.506	26.526	1.00	37.63	N
ATOM	5351	CA	VAL	B	237	75.110	34.287	26.092	1.00	39.84	C
ATOM	5352	CB	VAL	B	237	74.501	33.467	27.156	1.00	39.21	C
ATOM	5353	CG1	VAL	B	237	73.715	32.309	26.519	1.00	41.58	C
ATOM	5354	CG2	VAL	B	237	75.593	32.886	27.946	1.00	34.72	C
ATOM	5355	C	VAL	B	237	74.186	34.531	24.910	1.00	43.75	C
ATOM	5356	O	VAL	B	237	74.377	34.002	23.805	1.00	44.89	O
ATOM	5357	N	ALA	B	238	73.344	35.486	25.083	1.00	43.81	N
ATOM	5358	CA	ALA	B	238	72.410	35.913	24.022	1.00	41.07	C
ATOM	5359	CB	ALA	B	238	71.489	37.092	24.501	1.00	40.87	C
ATOM	5360	C	ALA	B	238	73.088	36.308	22.800	1.00	35.85	C
ATOM	5361	O	ALA	B	238	72.728	35.982	21.681	1.00	37.72	O
ATOM	5362	N	PHE	B	239	74.105	36.943	22.896	1.00	33.90	N
ATOM	5363	CA	PHE	B	239	74.811	37.235	21.558	1.00	32.70	C
ATOM	5364	CB	PHE	B	239	76.065	38.113	21.801	1.00	32.73	C
ATOM	5365	CG	PHE	B	239	76.894	38.381	20.657	1.00	32.54	C
ATOM	5366	CD1	PHE	B	239	77.779	37.384	20.170	1.00	45.49	C
ATOM	5367	CE1	PHE	B	239	78.634	37.573	19.082	1.00	30.38	C
ATOM	5368	CZ	PHE	B	239	78.474	38.916	18.426	1.00	34.37	C
ATOM	5369	CE2	PHE	B	239	77.597	39.817	18.874	1.00	26.74	C
ATOM	5370	CD2	PHE	B	239	76.823	39.537	20.010	1.00	29.85	C
ATOM	5371	C	PHE	B	239	75.186	35.965	20.867	1.00	33.03	C
ATOM	5372	O	PHE	B	239	74.892	35.749	19.785	1.00	37.01	O
ATOM	5373	N	MET	B	240	75.651	34.993	21.653	1.00	37.05	N
ATOM	5374	CA	MET	B	240	76.024	33.639	21.190	1.00	36.55	C
ATOM	5375	CB	MET	B	240	76.726	32.913	22.324	1.00	37.05	C
ATOM	5376	CG	MET	B	240	78.287	33.195	22.304	1.00	37.04	C
ATOM	5377	SD	MET	B	240	79.144	32.594	23.640	1.00	54.67	S
ATOM	5378	CE	MET	B	240	78.265	32.682	24.953	1.00	47.01	C
ATOM	5379	C	MET	B	240	74.804	32.906	20.669	1.00	38.11	C
ATOM	5380	O	MET	B	240	74.760	32.541	19.472	1.00	42.72	O
ATOM	5381	N	LYS	B	241	73.772	32.784	21.432	1.00	33.44	N
ATOM	5382	CA	LYS	B	241	72.620	32.055	20.987	1.00	33.25	C
ATOM	5383	CB	LYS	B	241	71.599	32.121	21.982	1.00	31.09	C
ATOM	5384	CG	LYS	B	241	71.139	31.078	22.698	1.00	31.11	C
ATOM	5385	CD	LYS	B	241	71.028	31.397	23.971	1.00	32.37	C
ATOM	5386	CE	LYS	B	241	70.304	30.451	24.827	1.00	41.02	C
ATOM	5387	NZ	LYS	B	241	68.853	30.888	25.107	1.00	44.34	N
ATOM	5388	C	LYS	B	241	72.092	32.591	19.634	1.00	37.30	C
ATOM	5389	O	LYS	B	241	71.712	31.930	18.743	1.00	35.77	O
ATOM	5390	N	SER	B	242	72.147	33.879	19.448	1.00	43.20	N
ATOM	5391	CA	SER	B	242	71.466	34.494	18.239	1.00	41.30	C
ATOM	5392	CB	SER	B	242	71.234	35.974	18.505	1.00	40.38	C
ATOM	5393	OG	SER	B	242	71.375	36.671	17.461	1.00	45.95	O

Figure 2

ATOM	5394	C	SER	B	242	72.333	34.283	17.109	1.00	39.41	C
ATOM	5395	O	SER	B	242	71.883	33.909	16.030	1.00	38.87	O
ATOM	5396	N	TYR	B	243	73.638	34.430	17.340	1.00	40.63	N
ATOM	5397	CA	TYR	B	243	74.655	34.045	16.193	1.00	38.09	C
ATOM	5398	CB	TYR	B	243	75.988	34.196	16.715	1.00	30.95	C
ATOM	5399	CG	TYR	B	243	76.941	33.717	15.750	1.00	39.34	C
ATOM	5400	CD1	TYR	B	243	76.927	34.112	14.541	1.00	39.67	C
ATOM	5401	CE1	TYR	B	243	77.840	33.639	13.644	1.00	42.26	C
ATOM	5402	CZ	TYR	B	243	78.789	32.774	13.944	1.00	45.06	C
ATOM	5403	OH	TYR	B	243	79.738	32.304	13.000	1.00	51.27	O
ATOM	5404	CE2	TYR	B	243	78.838	32.344	15.157	1.00	44.08	C
ATOM	5405	CD2	TYR	B	243	77.916	32.805	16.068	1.00	41.76	C
ATOM	5406	C	TYR	B	243	74.439	32.622	15.682	1.00	41.00	C
ATOM	5407	O	TYR	B	243	74.297	32.407	14.595	1.00	45.00	O
ATOM	5408	N	ILE	B	244	74.353	31.635	16.605	1.00	42.55	N
ATOM	5409	CA	ILE	B	244	74.045	30.366	16.318	1.00	39.95	C
ATOM	5410	CB	ILE	B	244	74.076	29.554	17.591	1.00	39.98	C
ATOM	5411	CG1	ILE	B	244	75.529	29.171	17.973	1.00	40.28	C
ATOM	5412	CD1	ILE	B	244	75.620	28.782	19.235	1.00	43.96	C
ATOM	5413	CG2	ILE	B	244	73.503	28.188	17.305	1.00	42.08	C
ATOM	5414	C	ILE	B	244	72.824	30.200	15.634	1.00	40.82	C
ATOM	5415	O	ILE	B	244	72.684	29.371	14.782	1.00	42.69	O
ATOM	5416	N	LEU	B	245	71.810	30.908	16.009	1.00	45.80	N
ATOM	5417	CA	LEU	B	245	70.374	30.746	15.378	1.00	45.20	C
ATOM	5418	CB	LEU	B	245	69.422	31.567	16.124	1.00	45.16	C
ATOM	5419	CG	LEU	B	245	67.929	31.432	16.034	1.00	52.06	C
ATOM	5420	CD1	LEU	B	245	67.528	32.158	14.923	1.00	58.17	C
ATOM	5421	CD2	LEU	B	245	67.503	30.040	15.799	1.00	51.00	C
ATOM	5422	C	LEU	B	245	70.458	31.185	13.972	1.00	45.45	C
ATOM	5423	O	LEU	B	245	70.025	30.624	13.045	1.00	46.92	O
ATOM	5424	N	GLU	B	246	71.172	32.175	13.763	1.00	45.09	N
ATOM	5425	CA	GLU	B	246	71.327	32.510	12.424	1.00	48.56	C
ATOM	5426	CB	GLU	B	246	72.170	33.856	12.330	1.00	53.10	C
ATOM	5427	CG	GLU	B	246	72.806	34.385	11.077	1.00	59.97	C
ATOM	5428	CD	GLU	B	246	74.044	35.248	11.376	1.00	73.68	C
ATOM	5429	OE1	GLU	B	246	73.947	35.955	12.511	1.00	68.34	O
ATOM	5430	OE2	GLU	B	246	75.061	35.230	10.446	1.00	79.80	O
ATOM	5431	C	GLU	B	246	71.990	31.379	11.748	1.00	47.47	C
ATOM	5432	O	GLU	B	246	71.680	31.036	10.692	1.00	50.24	O
ATOM	5433	N	LYS	B	247	72.891	30.696	12.363	1.00	47.92	N
ATOM	5434	CA	LYS	B	247	73.487	29.532	11.679	1.00	45.25	C
ATOM	5435	CB	LYS	B	247	74.665	29.035	12.456	1.00	44.35	C
ATOM	5436	CG	LYS	B	247	75.918	29.123	11.665	1.00	46.29	C
ATOM	5437	CD	LYS	B	247	76.315	30.523	11.389	1.00	47.79	C
ATOM	5438	CE	LYS	B	247	77.741	30.724	10.924	1.00	42.42	C
ATOM	5439	NZ	LYS	B	247	77.921	30.443	9.421	1.00	50.13	N
ATOM	5440	C	LYS	B	247	72.417	28.396	11.577	1.00	45.31	C
ATOM	5441	O	LYS	B	247	72.437	27.634	10.518	1.00	40.35	O
ATOM	5442	N	VAL	B	248	71.492	28.220	12.618	1.00	43.58	N
ATOM	5443	CA	VAL	B	248	70.624	27.158	12.380	1.00	44.52	C
ATOM	5444	CB	VAL	B	248	69.927	26.617	13.541	1.00	45.17	C
ATOM	5445	CG1	VAL	B	248	70.718	26.626	14.779	1.00	42.11	C
ATOM	5446	CG2	VAL	B	248	68.709	27.057	13.531	1.00	47.50	C
ATOM	5447	C	VAL	B	248	69.731	27.396	11.255	1.00	47.42	C
ATOM	5448	O	VAL	B	248	69.140	26.552	10.623	1.00	47.21	O
ATOM	5449	N	LYS	B	249	69.589	28.636	10.936	1.00	53.22	N
ATOM	5450	CA	LYS	B	249	68.644	28.965	9.853	1.00	52.33	C
ATOM	5451	CB	LYS	B	249	68.240	30.392	9.986	1.00	51.96	C
ATOM	5452	CG	LYS	B	249	67.064	30.554	10.943	1.00	49.62	C
ATOM	5453	CD	LYS	B	249	66.803	32.089	11.021	1.00	57.51	C
ATOM	5454	CE	LYS	B	249	65.646	32.513	11.966	1.00	59.49	C
ATOM	5455	NZ	LYS	B	249	64.265	31.842	11.491	1.00	69.94	N
ATOM	5456	C	LYS	B	249	69.351	28.713	8.578	1.00	53.70	C
ATOM	5457	O	LYS	B	249	68.678	28.170	7.734	1.00	60.27	O
ATOM	5458	N	GLU	B	250	70.623	29.059	8.391	1.00	50.17	N
ATOM	5459	CA	GLU	B	250	71.288	28.770	7.136	1.00	50.08	C
ATOM	5460	CB	GLU	B	250	72.797	29.141	7.084	1.00	49.44	C
ATOM	5461	CG	GLU	B	250	73.256	30.585	7.210	1.00	52.01	C
ATOM	5462	CD	GLU	B	250	74.758	30.904	7.556	1.00	57.66	C
ATOM	5463	OE1	GLU	B	250	75.089	32.103	7.767	1.00	70.61	O
ATOM	5464	OE2	GLU	B	250	75.710	30.066	7.596	1.00	65.18	O
ATOM	5465	C	GLU	B	250	71.277	27.219	7.041	1.00	51.10	C
ATOM	5466	O	GLU	B	250	71.357	26.579	5.995	1.00	55.20	O
ATOM	5467	N	HIS	B	251	71.201	26.543	8.146	1.00	48.92	N
ATOM	5468	CA	HIS	B	251	71.188	25.140	7.950	1.00	46.59	C
ATOM	5469	CB	HIS	B	251	71.599	24.418	9.230	1.00	46.55	C

170/514

Figure 2

ATOM	5470	CG	HIS	B	251	73.052	24.201	9.379	1.00	37.09	C
ATOM	5471	ND1	HIS	B	251	73.974	25.198	9.352	1.00	38.78	N
ATOM	5472	CE1	HIS	B	251	75.194	24.661	9.421	1.00	33.66	C
ATOM	5473	NE2	HIS	B	251	75.088	23.342	9.540	1.00	31.07	N
ATOM	5474	CD2	HIS	B	251	73.754	23.059	9.528	1.00	41.19	C
ATOM	5475	C	HIS	B	251	69.817	24.747	7.454	1.00	49.00	C
ATOM	5476	O	HIS	B	251	69.766	24.169	6.478	1.00	48.40	O
ATOM	5477	N	GLN	B	252	68.709	25.163	8.100	1.00	51.94	N
ATOM	5478	CA	GLN	B	252	67.410	24.677	7.780	1.00	54.13	C
ATOM	5479	CB	GLN	B	252	66.418	25.352	8.608	1.00	54.78	C
ATOM	5480	CG	GLN	B	252	66.647	25.437	10.056	1.00	60.50	C
ATOM	5481	CD	GLN	B	252	65.416	25.978	10.817	1.00	60.87	C
ATOM	5482	OE1	GLN	B	252	64.684	25.263	11.333	1.00	57.60	O
ATOM	5483	NE2	GLN	B	252	65.222	27.291	10.799	1.00	72.58	N
ATOM	5484	C	GLN	B	252	67.049	24.795	6.308	1.00	57.73	C
ATOM	5485	O	GLN	B	252	66.161	24.191	5.755	1.00	56.42	O
ATOM	5486	N	GLU	B	253	67.784	25.602	5.644	1.00	61.69	N
ATOM	5487	CA	GLU	B	253	67.505	25.813	4.235	1.00	64.80	C
ATOM	5488	CB	GLU	B	253	68.136	27.207	3.796	1.00	65.79	C
ATOM	5489	CG	GLU	B	253	67.744	27.768	2.420	1.00	73.29	C
ATOM	5490	CD	GLU	B	253	68.535	27.128	1.238	1.00	82.37	C
ATOM	5491	OE1	GLU	B	253	68.258	27.321	0.000	1.00	77.76	O
ATOM	5492	OE2	GLU	B	253	69.488	26.383	1.545	1.00	81.74	O
ATOM	5493	C	GLU	B	253	68.169	24.671	3.501	1.00	66.34	C
ATOM	5494	O	GLU	B	253	67.525	23.818	3.102	1.00	65.47	O
ATOM	5495	N	SER	B	254	69.505	24.666	3.392	1.00	69.12	N
ATOM	5496	CA	SER	B	254	70.277	23.633	2.611	1.00	71.67	C
ATOM	5497	CB	SER	B	254	71.685	24.114	2.426	1.00	74.29	C
ATOM	5498	OG	SER	B	254	71.917	24.808	1.175	1.00	83.24	O
ATOM	5499	C	SER	B	254	70.448	22.277	3.156	1.00	68.57	C
ATOM	5500	O	SER	B	254	70.889	21.357	2.525	1.00	69.26	O
ATOM	5501	N	MET	B	255	70.057	22.178	4.341	1.00	71.74	N
ATOM	5502	CA	MET	B	255	69.948	20.904	5.045	1.00	73.35	C
ATOM	5503	CB	MET	B	255	68.963	21.079	6.266	1.00	72.53	C
ATOM	5504	CG	MET	B	255	69.429	20.429	7.493	1.00	76.18	C
ATOM	5505	SD	MET	B	255	68.591	19.005	7.858	1.00	74.57	S
ATOM	5506	CE	MET	B	255	66.824	19.585	7.857	1.00	75.36	C
ATOM	5507	C	MET	B	255	69.341	19.938	4.085	1.00	72.30	C
ATOM	5508	O	MET	B	255	68.541	20.318	3.247	1.00	74.17	O
ATOM	5509	N	ASP	B	256	69.638	18.678	4.300	1.00	71.30	N
ATOM	5510	CA	ASP	B	256	69.187	17.494	3.491	1.00	68.31	C
ATOM	5511	CB	ASP	B	256	70.029	17.417	2.237	1.00	68.44	C
ATOM	5512	CG	ASP	B	256	70.070	16.037	1.528	1.00	69.95	C
ATOM	5513	OD1	ASP	B	256	69.106	15.264	1.407	1.00	66.96	O
ATOM	5514	OD2	ASP	B	256	71.167	15.729	0.999	1.00	74.36	O
ATOM	5515	C	ASP	B	256	69.318	16.293	4.395	1.00	65.01	C
ATOM	5516	O	ASP	B	256	70.404	15.990	4.838	1.00	64.85	O
ATOM	5517	N	MET	B	257	68.232	15.597	4.548	1.00	63.05	N
ATOM	5518	CA	MET	B	257	67.949	14.650	5.505	1.00	63.75	C
ATOM	5519	CB	MET	B	257	66.499	14.364	5.423	1.00	68.24	C
ATOM	5520	CG	MET	B	257	65.499	15.422	6.058	1.00	75.16	C
ATOM	5521	SD	MET	B	257	65.791	15.712	7.796	1.00	83.85	S
ATOM	5522	CE	MET	B	257	64.538	17.182	7.947	1.00	84.59	C
ATOM	5523	C	MET	B	257	68.501	13.415	5.489	1.00	61.30	C
ATOM	5524	O	MET	B	257	68.456	12.832	6.558	1.00	65.52	O
ATOM	5525	N	ASN	B	258	69.020	12.959	4.369	1.00	61.13	N
ATOM	5526	CA	ASN	B	258	69.691	11.655	4.231	1.00	61.17	C
ATOM	5527	CB	ASN	B	258	69.429	11.158	2.836	1.00	62.69	C
ATOM	5528	CG	ASN	B	258	67.983	11.337	2.314	1.00	66.80	C
ATOM	5529	OD1	ASN	B	258	66.976	11.169	3.010	1.00	66.88	O
ATOM	5530	ND2	ASN	B	258	67.886	11.702	1.038	1.00	72.74	N
ATOM	5531	C	ASN	B	258	71.169	11.891	4.284	1.00	58.99	C
ATOM	5532	O	ASN	B	258	72.016	11.062	4.093	1.00	60.61	O
ATOM	5533	N	ASN	B	259	71.500	13.088	4.502	1.00	57.66	N
ATOM	5534	CA	ASN	B	259	72.855	13.525	4.460	1.00	58.24	C
ATOM	5535	CB	ASN	B	259	73.035	14.206	3.121	1.00	57.76	C
ATOM	5536	CG	ASN	B	259	72.925	13.193	1.981	1.00	60.95	C
ATOM	5537	OD1	ASN	B	259	73.850	12.396	1.765	1.00	50.64	O
ATOM	5538	ND2	ASN	B	259	71.709	13.062	1.364	1.00	64.16	N
ATOM	5539	C	ASN	B	259	73.255	14.526	5.521	1.00	59.35	C
ATOM	5540	O	ASN	B	259	73.765	15.589	5.181	1.00	64.75	O
ATOM	5541	N	PRO	B	260	73.072	14.231	6.774	1.00	55.35	N
ATOM	5542	CA	PRO	B	260	73.533	15.100	7.819	1.00	53.28	C
ATOM	5543	CB	PRO	B	260	72.993	14.420	9.025	1.00	55.43	C
ATOM	5544	CG	PRO	B	260	72.952	13.078	8.695	1.00	54.79	C
ATOM	5545	CD	PRO	B	260	72.393	13.065	7.302	1.00	53.54	C

171/514

Figure 2

ATOM	5546	C	PRO	B	260	74.980	15.128	7.937	1.00	51.86	C
ATOM	5547	O	PRO	B	260	75.584	14.083	7.823	1.00	48.56	O
ATOM	5548	N	GLN	B	261	75.512	16.355	8.214	1.00	50.80	N
ATOM	5549	CA	GLN	B	261	76.975	16.542	8.289	1.00	47.67	C
ATOM	5550	CB	GLN	B	261	77.388	17.281	7.153	1.00	46.55	C
ATOM	5551	CG	GLN	B	261	77.002	16.668	5.795	1.00	53.79	C
ATOM	5552	CD	GLN	B	261	77.671	17.517	4.560	1.00	62.49	C
ATOM	5553	OE1	GLN	B	261	78.887	17.407	4.259	1.00	65.87	O
ATOM	5554	NE2	GLN	B	261	76.850	18.435	3.954	1.00	69.78	N
ATOM	5555	C	GLN	B	261	77.528	17.217	9.544	1.00	44.39	C
ATOM	5556	O	GLN	B	261	78.736	17.320	9.723	1.00	44.86	O
ATOM	5557	N	ASP	B	262	76.657	17.628	10.450	1.00	40.85	N
ATOM	5558	CA	ASP	B	262	77.093	18.340	11.619	1.00	38.42	C
ATOM	5559	CB	ASP	B	262	77.594	19.739	11.253	1.00	36.85	C
ATOM	5560	CG	ASP	B	262	76.569	20.609	10.673	1.00	41.68	C
ATOM	5561	OD1	ASP	B	262	76.874	21.543	9.906	1.00	36.08	O
ATOM	5562	OD2	ASP	B	262	75.345	20.383	10.956	1.00	41.86	O
ATOM	5563	C	ASP	B	262	76.096	18.344	12.693	1.00	35.66	C
ATOM	5564	O	ASP	B	262	75.012	17.893	12.462	1.00	37.30	O
ATOM	5565	N	PHE	B	263	76.439	18.792	13.874	1.00	33.03	N
ATOM	5566	CA	PHE	B	263	75.477	18.707	15.031	1.00	33.21	C
ATOM	5567	CB	PHE	B	263	76.092	19.361	16.197	1.00	36.50	C
ATOM	5568	CG	PHE	B	263	75.524	19.147	17.432	1.00	38.49	C
ATOM	5569	CD1	PHE	B	263	75.995	18.198	18.286	1.00	42.25	C
ATOM	5570	CE1	PHE	B	263	75.430	17.981	19.507	1.00	36.46	C
ATOM	5571	CZ	PHE	B	263	74.512	18.715	19.888	1.00	40.08	C
ATOM	5572	CE2	PHE	B	263	74.060	19.683	19.161	1.00	40.95	C
ATOM	5573	CD2	PHE	B	263	74.557	19.908	17.884	1.00	47.27	C
ATOM	5574	C	PHE	B	263	74.176	19.325	14.725	1.00	37.40	C
ATOM	5575	O	PHE	B	263	73.051	18.807	15.023	1.00	37.72	O
ATOM	5576	N	ILE	B	264	74.178	20.479	14.055	1.00	39.06	N
ATOM	5577	CA	ILE	B	264	72.946	21.043	13.699	1.00	37.92	C
ATOM	5578	CB	ILE	B	264	73.214	22.262	13.024	1.00	40.59	C
ATOM	5579	CG1	ILE	B	264	73.916	23.230	13.957	1.00	39.54	C
ATOM	5580	CD1	ILE	B	264	74.215	24.696	13.301	1.00	35.47	C
ATOM	5581	CG2	ILE	B	264	71.867	22.969	12.500	1.00	48.95	C
ATOM	5582	C	ILE	B	264	72.177	20.134	12.853	1.00	36.80	C
ATOM	5583	O	ILE	B	264	71.115	19.786	13.165	1.00	41.55	O
ATOM	5584	N	ASP	B	265	72.695	19.689	11.761	1.00	38.37	N
ATOM	5585	CA	ASP	B	265	71.894	18.792	10.775	1.00	36.03	C
ATOM	5586	CB	ASP	B	265	72.790	18.190	9.719	1.00	34.86	C
ATOM	5587	CG	ASP	B	265	73.173	19.135	8.651	1.00	42.32	C
ATOM	5588	OD1	ASP	B	265	72.367	20.214	8.525	1.00	37.09	O
ATOM	5589	OD2	ASP	B	265	74.262	18.876	7.816	1.00	42.52	O
ATOM	5590	C	ASP	B	265	71.395	17.676	11.623	1.00	35.37	C
ATOM	5591	O	ASP	B	265	70.293	17.410	11.558	1.00	33.49	O
ATOM	5592	N	CYS	B	266	72.220	17.055	12.452	1.00	36.16	N
ATOM	5593	CA	CYS	B	266	71.652	15.961	13.224	1.00	40.84	C
ATOM	5594	CB	CYS	B	266	72.686	15.203	13.999	1.00	39.08	C
ATOM	5595	SG	CYS	B	266	73.937	14.511	12.917	1.00	47.72	S
ATOM	5596	C	CYS	B	266	70.505	16.493	14.279	1.00	43.25	C
ATOM	5597	O	CYS	B	266	69.521	15.925	14.475	1.00	43.70	O
ATOM	5598	N	PHE	B	267	70.673	17.615	14.938	1.00	44.75	N
ATOM	5599	CA	PHE	B	267	69.626	17.973	15.837	1.00	44.97	C
ATOM	5600	CB	PHE	B	267	70.159	19.129	16.684	1.00	43.89	C
ATOM	5601	CG	PHE	B	267	69.410	19.417	17.863	1.00	40.32	C
ATOM	5602	CD1	PHE	B	267	69.772	18.967	19.006	1.00	41.39	C
ATOM	5603	CE1	PHE	B	267	69.066	19.275	20.050	1.00	42.24	C
ATOM	5604	CZ	PHE	B	267	67.923	20.064	19.994	1.00	41.04	C
ATOM	5605	CE2	PHE	B	267	67.555	20.558	18.858	1.00	44.13	C
ATOM	5606	CD2	PHE	B	267	68.319	20.214	17.778	1.00	47.15	C
ATOM	5607	C	PHE	B	267	68.427	18.333	14.936	1.00	46.76	C
ATOM	5608	O	PHE	B	267	67.267	18.030	15.244	1.00	45.55	O
ATOM	5609	N	LEU	B	268	68.683	18.987	13.809	1.00	46.80	N
ATOM	5610	CA	LEU	B	268	67.578	19.358	13.023	1.00	47.49	C
ATOM	5611	CB	LEU	B	268	68.102	20.051	11.856	1.00	48.04	C
ATOM	5612	CG	LEU	B	268	67.621	21.447	11.617	1.00	44.42	C
ATOM	5613	CD1	LEU	B	268	66.860	22.006	12.943	1.00	43.94	C
ATOM	5614	CD2	LEU	B	268	68.780	22.245	11.305	1.00	46.96	C
ATOM	5615	C	LEU	B	268	66.775	18.058	12.619	1.00	52.76	C
ATOM	5616	O	LEU	B	268	65.548	17.906	12.815	1.00	53.90	O
ATOM	5617	N	MET	B	269	67.427	17.007	12.166	1.00	54.94	N
ATOM	5618	CA	MET	B	269	66.596	15.845	11.904	1.00	56.40	C
ATOM	5619	CB	MET	B	269	67.229	14.914	10.841	1.00	59.11	C
ATOM	5620	CG	MET	B	269	68.464	14.317	11.166	1.00	59.58	C
ATOM	5621	SD	MET	B	269	69.016	13.217	9.813	1.00	66.28	S

172/514

Figure 2

ATOM	5622	CE	MET	B	269	69.860	14.509	8.605	1.00	63.16	C
ATOM	5623	C	MET	B	269	66.061	15.054	12.954	1.00	56.00	C
ATOM	5624	O	MET	B	269	65.146	14.261	12.813	1.00	58.00	O
ATOM	5625	N	LYS	B	270	66.583	15.210	14.092	1.00	58.41	N
ATOM	5626	CA	LYS	B	270	66.066	14.445	15.274	1.00	56.54	C
ATOM	5627	CB	LYS	B	270	67.057	14.536	16.445	1.00	56.24	C
ATOM	5628	CG	LYS	B	270	66.619	14.103	17.776	1.00	54.64	C
ATOM	5629	CD	LYS	B	270	66.342	12.742	17.781	1.00	54.88	C
ATOM	5630	CE	LYS	B	270	66.308	12.138	19.292	1.00	49.82	C
ATOM	5631	NZ	LYS	B	270	66.271	10.741	19.266	1.00	39.60	N
ATOM	5632	C	LYS	B	270	64.816	15.057	15.595	1.00	54.88	C
ATOM	5633	O	LYS	B	270	64.039	14.471	16.175	1.00	57.35	O
ATOM	5634	N	MET	B	271	64.607	16.266	15.230	1.00	56.48	N
ATOM	5635	CA	MET	B	271	63.325	16.914	15.560	1.00	58.56	C
ATOM	5636	CB	MET	B	271	63.421	18.397	15.368	1.00	55.83	C
ATOM	5637	CG	MET	B	271	64.203	18.929	16.364	1.00	56.85	C
ATOM	5638	SD	MET	B	271	64.541	20.778	16.147	1.00	61.02	S
ATOM	5639	CE	MET	B	271	62.966	21.476	16.467	1.00	57.01	C
ATOM	5640	C	MET	B	271	62.293	16.416	14.551	1.00	62.95	C
ATOM	5641	O	MET	B	271	61.182	16.323	14.877	1.00	67.14	O
ATOM	5642	N	GLU	B	272	62.645	16.062	13.348	1.00	64.05	N
ATOM	5643	CA	GLU	B	272	61.696	15.506	12.445	1.00	65.87	C
ATOM	5644	CB	GLU	B	272	62.373	15.037	11.115	1.00	67.95	C
ATOM	5645	CG	GLU	B	272	61.416	14.985	9.898	1.00	73.52	C
ATOM	5646	CD	GLU	B	272	60.754	16.321	9.631	1.00	76.43	C
ATOM	5647	OE1	GLU	B	272	60.932	17.221	10.490	1.00	74.35	O
ATOM	5648	OE2	GLU	B	272	60.109	16.448	8.554	1.00	76.63	O
ATOM	5649	C	GLU	B	272	61.111	14.251	13.138	1.00	66.17	C
ATOM	5650	O	GLU	B	272	59.927	14.119	13.278	1.00	69.75	O
ATOM	5651	N	LYS	B	273	61.882	13.315	13.598	1.00	64.99	N
ATOM	5652	CA	LYS	B	273	61.267	12.283	14.437	1.00	65.01	C
ATOM	5653	CB	LYS	B	273	62.347	11.294	14.906	1.00	66.62	C
ATOM	5654	CG	LYS	B	273	63.499	11.011	13.764	1.00	70.86	C
ATOM	5655	CD	LYS	B	273	64.574	9.949	14.277	1.00	75.39	C
ATOM	5656	CE	LYS	B	273	63.987	8.541	14.632	1.00	77.05	C
ATOM	5657	NZ	LYS	B	273	64.592	7.620	15.697	1.00	73.14	N
ATOM	5658	C	LYS	B	273	60.812	13.059	15.620	1.00	64.93	C
ATOM	5659	O	LYS	B	273	61.016	14.282	15.745	1.00	63.18	O
ATOM	5660	N	GLU	B	274	60.232	12.389	16.573	1.00	66.40	N
ATOM	5661	CA	GLU	B	274	59.744	13.140	17.722	1.00	67.79	C
ATOM	5662	CB	GLU	B	274	60.830	14.010	18.359	1.00	68.21	C
ATOM	5663	CG	GLU	B	274	62.168	13.377	18.554	1.00	69.48	C
ATOM	5664	CD	GLU	B	274	62.179	12.200	19.551	1.00	73.95	C
ATOM	5665	OE1	GLU	B	274	61.520	12.343	20.606	1.00	81.32	O
ATOM	5666	OE2	GLU	B	274	62.818	11.131	19.305	1.00	67.38	O
ATOM	5667	C	GLU	B	274	58.686	14.117	17.284	1.00	68.66	C
ATOM	5668	O	GLU	B	274	57.786	14.443	18.057	1.00	68.66	O
ATOM	5669	N	LYS	B	275	58.798	14.643	16.083	1.00	70.28	N
ATOM	5670	CA	LYS	B	275	57.796	15.652	15.608	1.00	73.49	C
ATOM	5671	CB	LYS	B	275	57.910	15.897	14.118	1.00	73.22	C
ATOM	5672	CG	LYS	B	275	56.661	15.727	13.340	1.00	74.78	C
ATOM	5673	CD	LYS	B	275	56.494	16.745	12.146	1.00	76.55	C
ATOM	5674	CE	LYS	B	275	57.554	16.556	10.986	1.00	77.81	C
ATOM	5675	NZ	LYS	B	275	57.629	17.810	10.070	1.00	79.12	N
ATOM	5676	C	LYS	B	275	56.358	15.374	15.880	1.00	75.02	C
ATOM	5677	O	LYS	B	275	55.571	16.297	15.930	1.00	76.27	O
ATOM	5678	N	HIS	B	276	56.029	14.113	16.061	1.00	75.47	N
ATOM	5679	CA	HIS	B	276	54.663	13.745	16.384	1.00	76.44	C
ATOM	5680	CB	HIS	B	276	54.441	12.388	15.860	1.00	77.28	C
ATOM	5681	CG	HIS	B	276	54.364	12.411	14.368	1.00	82.81	C
ATOM	5682	ND1	HIS	B	276	54.101	13.594	13.680	1.00	83.03	N
ATOM	5683	CE1	HIS	B	276	54.117	13.341	12.374	1.00	79.27	C
ATOM	5684	NE2	HIS	B	276	54.370	12.053	12.194	1.00	80.04	N
ATOM	5685	CD2	HIS	B	276	54.539	11.443	13.421	1.00	82.53	C
ATOM	5686	C	HIS	B	276	54.453	13.784	17.900	1.00	77.31	C
ATOM	5687	O	HIS	B	276	53.436	14.334	18.359	1.00	80.32	O
ATOM	5688	N	ASN	B	277	55.406	13.269	18.683	1.00	76.29	N
ATOM	5689	CA	ASN	B	277	55.370	13.333	20.165	1.00	77.08	C
ATOM	5690	CB	ASN	B	277	56.268	12.196	20.704	1.00	79.19	C
ATOM	5691	CG	ASN	B	277	56.149	10.893	19.844	1.00	84.16	C
ATOM	5692	OD1	ASN	B	277	56.303	10.959	18.593	1.00	90.43	O
ATOM	5693	ND2	ASN	B	277	55.843	9.728	20.500	1.00	89.14	N
ATOM	5694	C	ASN	B	277	55.809	14.753	20.646	1.00	75.95	C
ATOM	5695	O	ASN	B	277	56.835	14.969	21.265	1.00	69.68	O
ATOM	5696	N	GLN	B	278	54.948	15.715	20.316	1.00	78.28	N
ATOM	5697	CA	GLN	B	278	55.203	17.139	20.506	1.00	79.26	C

173/514

Figure 2

ATOM	5698	CB	GLN	B	278	54.150	18.043	19.933	1.00	79.94	C
ATOM	5699	CG	GLN	B	278	54.895	19.383	19.418	1.00	79.91	C
ATOM	5700	CD	GLN	B	278	55.811	19.176	18.160	1.00	79.04	C
ATOM	5701	OE1	GLN	B	278	55.887	20.121	17.263	1.00	80.51	O
ATOM	5702	NE2	GLN	B	278	56.463	17.942	18.036	1.00	78.35	N
ATOM	5703	C	GLN	B	278	55.539	17.769	21.799	1.00	79.74	C
ATOM	5704	O	GLN	B	278	55.987	18.955	21.835	1.00	81.74	O
ATOM	5705	N	PRO	B	279	55.243	17.147	22.891	1.00	77.32	N
ATOM	5706	CA	PRO	B	279	55.896	17.727	24.073	1.00	76.47	C
ATOM	5707	CB	PRO	B	279	55.539	16.774	25.201	1.00	78.10	C
ATOM	5708	CG	PRO	B	279	54.215	16.058	24.623	1.00	77.32	C
ATOM	5709	CD	PRO	B	279	54.268	16.099	23.142	1.00	75.66	C
ATOM	5710	C	PRO	B	279	57.468	17.725	23.820	1.00	72.19	C
ATOM	5711	O	PRO	B	279	58.095	18.286	24.588	1.00	76.84	O
ATOM	5712	N	SER	B	280	58.064	17.100	22.855	1.00	66.52	N
ATOM	5713	CA	SER	B	280	59.562	17.150	22.557	1.00	64.40	C
ATOM	5714	CB	SER	B	280	59.844	17.340	21.085	1.00	64.40	C
ATOM	5715	OG	SER	B	280	61.063	16.630	20.618	1.00	63.62	O
ATOM	5716	C	SER	B	280	60.642	17.997	23.232	1.00	62.52	C
ATOM	5717	O	SER	B	280	60.575	19.202	23.298	1.00	61.42	O
ATOM	5718	N	GLU	B	281	61.678	17.302	23.667	1.00	60.81	N
ATOM	5719	CA	GLU	B	281	62.917	17.860	24.327	1.00	57.90	C
ATOM	5720	CB	GLU	B	281	63.718	16.729	24.831	1.00	58.64	C
ATOM	5721	CG	GLU	B	281	64.012	16.793	26.255	1.00	67.05	C
ATOM	5722	CD	GLU	B	281	62.834	17.217	27.161	1.00	71.61	C
ATOM	5723	OE1	GLU	B	281	62.483	18.401	27.168	1.00	69.02	O
ATOM	5724	OE2	GLU	B	281	62.316	16.358	27.921	1.00	82.52	O
ATOM	5725	C	GLU	B	281	63.830	18.518	23.334	1.00	54.35	C
ATOM	5726	O	GLU	B	281	64.542	19.366	23.642	1.00	53.40	O
ATOM	5727	N	PHE	B	282	63.766	18.121	22.078	1.00	50.73	N
ATOM	5728	CA	PHE	B	282	64.525	18.748	21.122	1.00	47.76	C
ATOM	5729	CB	PHE	B	282	64.933	17.689	20.101	1.00	44.65	C
ATOM	5730	CG	PHE	B	282	65.802	16.656	20.637	1.00	39.02	C
ATOM	5731	CD1	PHE	B	282	65.277	15.629	21.256	1.00	44.15	C
ATOM	5732	CE1	PHE	B	282	65.952	14.690	21.766	1.00	39.80	C
ATOM	5733	CZ	PHE	B	282	67.228	14.779	21.654	1.00	46.74	C
ATOM	5734	CE2	PHE	B	282	67.776	15.777	21.073	1.00	40.33	C
ATOM	5735	CD2	PHE	B	282	67.030	16.720	20.576	1.00	34.43	C
ATOM	5736	C	PHE	B	282	63.759	19.869	20.388	1.00	48.91	C
ATOM	5737	O	PHE	B	282	62.855	19.566	19.556	1.00	53.37	O
ATOM	5738	N	THR	B	283	64.168	21.119	20.497	1.00	44.90	N
ATOM	5739	CA	THR	B	283	63.619	22.313	19.836	1.00	40.71	C
ATOM	5740	CB	THR	B	283	62.730	23.051	20.800	1.00	39.21	C
ATOM	5741	OG1	THR	B	283	63.655	23.625	21.757	1.00	41.87	O
ATOM	5742	CG2	THR	B	283	61.827	22.099	21.657	1.00	40.88	C
ATOM	5743	C	THR	B	283	64.699	23.369	19.557	1.00	41.23	C
ATOM	5744	O	THR	B	283	65.703	23.456	20.168	1.00	40.12	O
ATOM	5745	N	ILE	B	284	64.477	24.277	18.608	1.00	41.87	N
ATOM	5746	CA	ILE	B	284	65.482	25.213	18.323	1.00	40.90	C
ATOM	5747	CB	ILE	B	284	64.921	26.188	17.477	1.00	42.68	C
ATOM	5748	CG1	ILE	B	284	64.309	25.552	16.180	1.00	40.70	C
ATOM	5749	CD1	ILE	B	284	65.161	24.737	15.388	1.00	47.84	C
ATOM	5750	CG2	ILE	B	284	65.993	27.148	17.006	1.00	45.38	C
ATOM	5751	C	ILE	B	284	66.067	25.883	19.572	1.00	42.12	C
ATOM	5752	O	ILE	B	284	67.185	26.231	19.673	1.00	43.77	O
ATOM	5753	N	GLU	B	285	65.325	26.017	20.585	1.00	43.57	N
ATOM	5754	CA	GLU	B	285	65.817	26.623	21.780	1.00	47.57	C
ATOM	5755	CB	GLU	B	285	64.689	26.743	22.787	1.00	51.85	C
ATOM	5756	CG	GLU	B	285	64.010	28.048	22.893	1.00	64.14	C
ATOM	5757	CD	GLU	B	285	64.330	28.806	24.196	1.00	70.85	C
ATOM	5758	OE1	GLU	B	285	63.391	28.955	25.038	1.00	64.74	O
ATOM	5759	OE2	GLU	B	285	65.590	29.192	24.298	1.00	77.83	O
ATOM	5760	C	GLU	B	285	66.889	25.635	22.367	1.00	43.48	C
ATOM	5761	O	GLU	B	285	68.036	26.023	22.582	1.00	37.79	O
ATOM	5762	N	SER	B	286	66.446	24.389	22.631	1.00	40.49	N
ATOM	5763	CA	SER	B	286	67.432	23.521	23.127	1.00	41.15	C
ATOM	5764	CB	SER	B	286	66.968	22.230	23.487	1.00	41.62	C
ATOM	5765	OG	SER	B	286	65.830	21.907	22.891	1.00	41.96	O
ATOM	5766	C	SER	B	286	68.659	23.405	22.287	1.00	41.86	C
ATOM	5767	O	SER	B	286	69.762	23.304	22.799	1.00	42.25	O
ATOM	5768	N	LEU	B	287	68.499	23.529	20.979	1.00	43.68	N
ATOM	5769	CA	LEU	B	287	69.621	23.415	20.040	1.00	39.97	C
ATOM	5770	CB	LEU	B	287	69.145	23.438	18.589	1.00	38.07	C
ATOM	5771	CG	LEU	B	287	70.248	23.636	17.604	1.00	41.22	C
ATOM	5772	CD1	LEU	B	287	71.389	22.793	17.890	1.00	45.04	C
ATOM	5773	CD2	LEU	B	287	69.847	23.334	16.324	1.00	45.31	C

174/514

Figure 2

ATOM	5774	C	LEU B 287	70.413	24.547	20.406	1.00	40.42	C
ATOM	5775	O	LEU B 287	71.521	24.384	20.688	1.00	41.27	O
ATOM	5776	N	GLU B 288	69.865	25.722	20.432	1.00	40.42	N
ATOM	5777	CA	GLU B 288	70.757	26.832	20.745	1.00	41.83	C
ATOM	5778	CB	GLU B 288	69.940	28.098	20.847	1.00	41.90	C
ATOM	5779	CG	GLU B 288	69.698	28.842	19.588	1.00	51.12	C
ATOM	5780	CD	GLU B 288	68.828	30.106	19.852	1.00	65.84	C
ATOM	5781	OE1	GLU B 288	68.181	30.076	20.980	1.00	57.03	O
ATOM	5782	OE2	GLU B 288	68.794	31.096	18.941	1.00	72.45	O
ATOM	5783	C	GLU B 288	71.491	26.665	22.074	1.00	39.15	C
ATOM	5784	O	GLU B 288	72.705	26.967	22.279	1.00	41.40	O
ATOM	5785	N	ASN B 289	70.738	26.224	23.021	1.00	36.86	N
ATOM	5786	CA	ASN B 289	71.330	26.078	24.306	1.00	34.87	C
ATOM	5787	CB	ASN B 289	70.439	25.589	25.316	1.00	36.17	C
ATOM	5788	CG	ASN B 289	69.289	26.570	25.683	1.00	41.11	C
ATOM	5789	OD1	ASN B 289	68.183	26.082	26.236	1.00	38.74	O
ATOM	5790	ND2	ASN B 289	69.551	27.879	25.542	1.00	34.17	N
ATOM	5791	C	ASN B 289	72.388	25.048	24.312	1.00	34.45	C
ATOM	5792	O	ASN B 289	73.380	25.300	24.895	1.00	34.41	O
ATOM	5793	N	THR B 290	72.208	23.935	23.616	1.00	31.03	N
ATOM	5794	CA	THR B 290	73.139	22.993	23.634	1.00	31.72	C
ATOM	5795	CB	THR B 290	72.546	21.477	23.184	1.00	38.14	C
ATOM	5796	OG1	THR B 290	71.349	21.028	24.022	1.00	34.21	O
ATOM	5797	CG2	THR B 290	73.624	20.370	23.359	1.00	35.09	C
ATOM	5798	C	THR B 290	74.349	23.317	22.930	1.00	29.42	C
ATOM	5799	O	THR B 290	75.436	22.837	23.227	1.00	35.68	O
ATOM	5800	N	ALA B 291	74.314	24.124	22.016	1.00	28.51	N
ATOM	5801	CA	ALA B 291	75.538	24.414	21.342	1.00	28.74	C
ATOM	5802	CB	ALA B 291	75.209	25.078	19.931	1.00	32.49	C
ATOM	5803	C	ALA B 291	76.236	25.428	22.110	1.00	31.37	C
ATOM	5804	O	ALA B 291	77.412	25.366	22.141	1.00	35.59	O
ATOM	5805	N	VAL B 292	75.638	26.395	22.801	1.00	34.17	N
ATOM	5806	CA	VAL B 292	76.568	27.262	23.620	1.00	33.96	C
ATOM	5807	CB	VAL B 292	75.910	28.543	24.273	1.00	37.57	C
ATOM	5808	CG1	VAL B 292	75.476	29.480	23.117	1.00	35.79	C
ATOM	5809	CG2	VAL B 292	74.808	28.111	25.036	1.00	38.04	C
ATOM	5810	C	VAL B 292	77.168	26.514	24.719	1.00	30.43	C
ATOM	5811	O	VAL B 292	78.354	26.607	24.947	1.00	31.96	O
ATOM	5812	N	ASP B 293	76.478	25.686	25.358	1.00	29.84	N
ATOM	5813	CA	ASP B 293	77.184	24.807	26.363	1.00	27.22	C
ATOM	5814	CB	ASP B 293	76.220	23.668	26.741	1.00	30.41	C
ATOM	5815	CG	ASP B 293	75.178	24.092	27.787	1.00	33.86	C
ATOM	5816	OD1	ASP B 293	74.227	23.305	28.179	1.00	45.95	O
ATOM	5817	OD2	ASP B 293	75.235	25.321	28.270	1.00	43.80	O
ATOM	5818	C	ASP B 293	78.400	24.175	25.764	1.00	27.72	C
ATOM	5819	O	ASP B 293	79.456	24.173	26.433	1.00	30.66	O
ATOM	5820	N	LEU B 294	78.340	23.662	24.522	1.00	26.00	N
ATOM	5821	CA	LEU B 294	79.491	23.051	23.882	1.00	25.56	C
ATOM	5822	CB	LEU B 294	79.170	22.369	22.575	1.00	24.91	C
ATOM	5823	CG	LEU B 294	78.056	21.284	22.753	1.00	23.28	C
ATOM	5824	CD1	LEU B 294	78.018	20.746	21.491	1.00	29.83	C
ATOM	5825	CD2	LEU B 294	78.552	20.205	23.668	1.00	32.55	C
ATOM	5826	C	LEU B 294	80.486	23.998	23.591	1.00	29.70	C
ATOM	5827	O	LEU B 294	81.651	23.588	23.870	1.00	36.70	O
ATOM	5828	N	PHE B 295	80.251	25.234	23.106	1.00	25.64	N
ATOM	5829	CA	PHE B 295	81.423	26.135	22.979	1.00	23.69	C
ATOM	5830	CB	PHE B 295	81.071	27.465	22.246	1.00	29.72	C
ATOM	5831	CG	PHE B 295	80.812	27.402	20.759	1.00	22.77	C
ATOM	5832	CD1	PHE B 295	81.780	27.437	19.974	1.00	25.27	C
ATOM	5833	CE1	PHE B 295	81.617	27.354	18.614	1.00	29.22	C
ATOM	5834	CZ	PHE B 295	80.462	27.213	18.134	1.00	27.95	C
ATOM	5835	CE2	PHE B 295	79.406	27.113	18.955	1.00	27.25	C
ATOM	5836	CD2	PHE B 295	79.592	27.200	20.272	1.00	22.54	C
ATOM	5837	C	PHE B 295	81.904	26.429	24.261	1.00	24.23	C
ATOM	5838	O	PHE B 295	83.025	26.684	24.445	1.00	29.09	O
ATOM	5839	N	GLY B 296	81.132	26.408	25.265	1.00	27.81	N
ATOM	5840	CA	GLY B 296	81.713	26.925	26.559	1.00	30.04	C
ATOM	5841	C	GLY B 296	82.460	25.911	27.262	1.00	31.83	C
ATOM	5842	O	GLY B 296	83.545	26.114	27.757	1.00	33.90	O
ATOM	5843	N	ALA B 297	81.841	24.760	27.323	1.00	33.26	N
ATOM	5844	CA	ALA B 297	82.590	23.564	27.860	1.00	32.86	C
ATOM	5845	CB	ALA B 297	81.618	22.459	27.966	1.00	32.82	C
ATOM	5846	C	ALA B 297	83.679	23.158	26.865	1.00	32.40	C
ATOM	5847	O	ALA B 297	84.694	22.693	27.296	1.00	37.22	O
ATOM	5848	N	GLY B 298	83.539	23.283	25.565	1.00	31.83	N
ATOM	5849	CA	GLY B 298	84.667	22.724	24.730	1.00	34.42	C

Figure 2

ATOM	5850	C	GLY B 298	85.905	23.565	24.622	1.00	36.37	C
ATOM	5851	O	GLY B 298	86.898	23.151	24.115	1.00	39.31	O
ATOM	5852	N	THR B 299	85.868	24.762	25.197	1.00	37.45	N
ATOM	5853	CA	THR B 299	86.878	25.733	24.943	1.00	32.98	C
ATOM	5854	CB	THR B 299	86.028	27.010	24.614	1.00	30.73	C
ATOM	5855	OG1	THR B 299	85.489	26.693	23.260	1.00	27.78	O
ATOM	5856	CG2	THR B 299	87.020	28.048	24.217	1.00	43.47	C
ATOM	5857	C	THR B 299	87.854	25.970	25.943	1.00	30.46	C
ATOM	5858	O	THR B 299	89.053	25.607	25.855	1.00	31.55	O
ATOM	5859	N	GLU B 300	87.452	26.563	26.975	1.00	28.62	N
ATOM	5860	CA	GLU B 300	88.468	26.980	28.045	1.00	30.15	C
ATOM	5861	CB	GLU B 300	87.615	27.454	29.174	1.00	32.83	C
ATOM	5862	CG	GLU B 300	87.921	28.673	30.045	1.00	41.99	C
ATOM	5863	CD	GLU B 300	89.430	29.024	30.417	1.00	59.17	C
ATOM	5864	OE1	GLU B 300	89.784	28.959	31.798	1.00	54.30	O
ATOM	5865	OE2	GLU B 300	90.242	29.419	29.333	1.00	56.97	O
ATOM	5866	C	GLU B 300	89.423	25.888	28.560	1.00	31.17	C
ATOM	5867	O	GLU B 300	90.595	26.006	28.523	1.00	29.34	O
ATOM	5868	N	THR B 301	88.873	24.726	29.083	1.00	33.64	N
ATOM	5869	CA	THR B 301	89.623	23.681	29.717	1.00	28.83	C
ATOM	5870	CB	THR B 301	88.723	22.643	30.183	1.00	33.00	C
ATOM	5871	OG1	THR B 301	87.606	23.071	30.972	1.00	33.84	O
ATOM	5872	CG2	THR B 301	89.436	22.014	31.331	1.00	41.73	C
ATOM	5873	C	THR B 301	90.532	23.117	28.794	1.00	26.35	C
ATOM	5874	O	THR B 301	91.689	22.936	29.136	1.00	27.00	O
ATOM	5875	N	THR B 302	90.081	22.905	27.559	1.00	21.83	N
ATOM	5876	CA	THR B 302	90.931	22.332	26.582	1.00	20.45	C
ATOM	5877	CB	THR B 302	90.248	22.170	25.404	1.00	20.95	C
ATOM	5878	OG1	THR B 302	89.013	21.437	25.524	1.00	27.13	O
ATOM	5879	CG2	THR B 302	91.008	21.511	24.377	1.00	24.25	C
ATOM	5880	C	THR B 302	92.060	23.252	26.362	1.00	23.28	C
ATOM	5881	O	THR B 302	93.263	22.929	26.243	1.00	26.38	O
ATOM	5882	N	SER B 303	91.694	24.502	26.355	1.00	26.00	N
ATOM	5883	CA	SER B 303	92.706	25.539	25.994	1.00	26.54	C
ATOM	5884	CB	SER B 303	92.013	26.840	25.808	1.00	29.31	C
ATOM	5885	OG	SER B 303	92.876	27.456	24.798	1.00	34.33	O
ATOM	5886	C	SER B 303	93.674	25.754	27.000	1.00	25.95	C
ATOM	5887	O	SER B 303	94.838	25.672	26.842	1.00	23.63	O
ATOM	5888	N	THR B 304	93.131	25.871	28.205	1.00	28.66	N
ATOM	5889	CA	THR B 304	94.027	25.952	29.332	1.00	28.92	C
ATOM	5890	CB	THR B 304	93.158	25.998	30.583	1.00	25.97	C
ATOM	5891	OG1	THR B 304	92.262	27.105	30.350	1.00	28.70	O
ATOM	5892	CG2	THR B 304	93.984	26.319	31.653	1.00	22.91	C
ATOM	5893	C	THR B 304	94.979	24.751	29.402	1.00	29.81	C
ATOM	5894	O	THR B 304	96.120	24.981	29.494	1.00	32.82	O
ATOM	5895	N	THR B 305	94.486	23.486	29.326	1.00	28.94	N
ATOM	5896	CA	THR B 305	95.339	22.346	29.416	1.00	24.65	C
ATOM	5897	CB	THR B 305	94.451	21.187	29.059	1.00	27.42	C
ATOM	5898	OG1	THR B 305	93.486	20.978	30.074	1.00	32.73	O
ATOM	5899	CG2	THR B 305	95.291	19.902	29.164	1.00	28.75	C
ATOM	5900	C	THR B 305	96.439	22.458	28.401	1.00	24.93	C
ATOM	5901	O	THR B 305	97.650	22.374	28.744	1.00	26.01	O
ATOM	5902	N	LEU B 306	96.089	22.731	27.106	1.00	24.77	N
ATOM	5903	CA	LEU B 306	97.097	22.974	26.162	1.00	25.62	C
ATOM	5904	CB	LEU B 306	96.595	23.484	24.914	1.00	23.23	C
ATOM	5905	CG	LEU B 306	95.702	22.589	24.288	1.00	24.92	C
ATOM	5906	CD1	LEU B 306	95.269	23.427	23.026	1.00	29.73	C
ATOM	5907	CD2	LEU B 306	96.419	21.405	23.758	1.00	31.40	C
ATOM	5908	C	LEU B 306	98.175	23.989	26.725	1.00	28.48	C
ATOM	5909	O	LEU B 306	99.391	23.656	26.741	1.00	28.95	O
ATOM	5910	N	ARG B 307	97.711	25.165	27.173	1.00	26.94	N
ATOM	5911	CA	ARG B 307	98.645	26.166	27.587	1.00	26.55	C
ATOM	5912	CB	ARG B 307	97.908	27.448	28.030	1.00	27.97	C
ATOM	5913	CG	ARG B 307	98.714	28.870	27.945	1.00	29.24	C
ATOM	5914	CD	ARG B 307	97.975	29.928	29.079	1.00	30.28	C
ATOM	5915	NE	ARG B 307	96.596	29.716	28.757	1.00	31.43	N
ATOM	5916	CZ	ARG B 307	95.625	29.966	29.458	1.00	30.55	C
ATOM	5917	NH1	ARG B 307	95.714	30.525	30.558	1.00	33.94	N
ATOM	5918	NH2	ARG B 307	94.445	29.627	29.011	1.00	42.17	N
ATOM	5919	C	ARG B 307	99.393	25.681	28.649	1.00	28.78	C
ATOM	5920	O	ARG B 307	100.614	25.968	28.747	1.00	34.07	O
ATOM	5921	N	TYR B 308	98.832	24.898	29.537	1.00	28.02	N
ATOM	5922	CA	TYR B 308	99.594	24.432	30.697	1.00	24.37	C
ATOM	5923	CB	TYR B 308	98.711	23.943	31.744	1.00	22.92	C
ATOM	5924	CG	TYR B 308	99.050	24.356	33.130	1.00	19.09	C
ATOM	5925	CD1	TYR B 308	98.051	24.685	34.032	1.00	24.46	C

Figure 2

ATOM	5926	CE1	TYR	B	308	98.366	25.085	35.316	1.00	25.95	C
ATOM	5927	CZ	TYR	B	308	99.613	25.146	35.692	1.00	24.73	C
ATOM	5928	OH	TYR	B	308	99.993	25.514	36.956	1.00	26.04	O
ATOM	5929	CE2	TYR	B	308	100.653	24.811	34.790	1.00	21.86	C
ATOM	5930	CD2	TYR	B	308	100.320	24.436	33.536	1.00	17.31	C
ATOM	5931	C	TYR	B	308	100.502	23.305	30.205	1.00	25.64	C
ATOM	5932	O	TYR	B	308	101.686	23.124	30.783	1.00	26.50	O
ATOM	5933	N	ALA	B	309	100.087	22.561	29.172	1.00	20.90	N
ATOM	5934	CA	ALA	B	309	101.156	21.610	28.691	1.00	22.52	C
ATOM	5935	CB	ALA	B	309	100.620	20.753	27.694	1.00	26.60	C
ATOM	5936	C	ALA	B	309	102.420	22.214	28.221	1.00	25.51	C
ATOM	5937	O	ALA	B	309	103.477	21.979	28.684	1.00	30.50	O
ATOM	5938	N	LEU	B	310	102.408	23.150	27.326	1.00	27.80	N
ATOM	5939	CA	LEU	B	310	103.595	23.769	26.843	1.00	27.09	C
ATOM	5940	CB	LEU	B	310	103.174	24.863	25.936	1.00	29.98	C
ATOM	5941	CG	LEU	B	310	102.314	24.396	24.715	1.00	32.16	C
ATOM	5942	CD1	LEU	B	310	102.017	25.658	23.643	1.00	32.74	C
ATOM	5943	CD2	LEU	B	310	103.117	23.449	23.994	1.00	35.85	C
ATOM	5944	C	LEU	B	310	104.369	24.354	27.963	1.00	30.58	C
ATOM	5945	O	LEU	B	310	105.626	24.330	28.012	1.00	36.06	O
ATOM	5946	N	LEU	B	311	103.767	24.982	28.910	1.00	31.33	N
ATOM	5947	CA	LEU	B	311	104.571	25.566	30.033	1.00	29.07	C
ATOM	5948	CB	LEU	B	311	103.560	26.200	31.094	1.00	28.95	C
ATOM	5949	CG	LEU	B	311	104.253	26.776	32.332	1.00	22.90	C
ATOM	5950	CD1	LEU	B	311	105.310	27.674	31.907	1.00	20.55	C
ATOM	5951	CD2	LEU	B	311	103.357	27.398	33.244	1.00	19.07	C
ATOM	5952	C	LEU	B	311	105.356	24.383	30.675	1.00	30.47	C
ATOM	5953	O	LEU	B	311	106.518	24.329	30.807	1.00	29.65	O
ATOM	5954	N	LEU	B	312	104.661	23.325	31.068	1.00	34.56	N
ATOM	5955	CA	LEU	B	312	105.346	22.088	31.681	1.00	29.00	C
ATOM	5956	CB	LEU	B	312	104.340	21.118	31.875	1.00	18.45	C
ATOM	5957	CG	LEU	B	312	103.485	21.553	32.931	1.00	18.35	C
ATOM	5958	CD1	LEU	B	312	102.177	20.782	33.271	1.00	23.01	C
ATOM	5959	CD2	LEU	B	312	104.199	21.553	34.240	1.00	16.76	C
ATOM	5960	C	LEU	B	312	106.503	21.650	30.727	1.00	29.86	C
ATOM	5961	O	LEU	B	312	107.523	21.412	31.113	1.00	30.70	O
ATOM	5962	N	LEU	B	313	106.247	21.563	29.474	1.00	30.96	N
ATOM	5963	CA	LEU	B	313	107.231	21.044	28.557	1.00	33.61	C
ATOM	5964	CB	LEU	B	313	106.556	20.766	27.179	1.00	31.30	C
ATOM	5965	CG	LEU	B	313	105.446	19.769	27.096	1.00	32.15	C
ATOM	5966	CD1	LEU	B	313	104.882	19.377	25.757	1.00	33.03	C
ATOM	5967	CD2	LEU	B	313	106.141	18.493	27.366	1.00	45.39	C
ATOM	5968	C	LEU	B	313	108.361	22.101	28.452	1.00	36.42	C
ATOM	5969	O	LEU	B	313	109.511	21.778	28.058	1.00	39.99	O
ATOM	5970	N	LEU	B	314	108.136	23.378	28.718	1.00	36.62	N
ATOM	5971	CA	LEU	B	314	109.357	24.317	28.660	1.00	32.68	C
ATOM	5972	CB	LEU	B	314	108.892	25.754	28.701	1.00	32.35	C
ATOM	5973	CG	LEU	B	314	108.564	26.566	27.598	1.00	28.76	C
ATOM	5974	CD1	LEU	B	314	108.292	27.813	28.076	1.00	37.20	C
ATOM	5975	CD2	LEU	B	314	109.748	26.733	26.515	1.00	35.27	C
ATOM	5976	C	LEU	B	314	110.046	24.083	29.957	1.00	32.85	C
ATOM	5977	O	LEU	B	314	111.095	24.046	30.040	1.00	35.93	O
ATOM	5978	N	LYS	B	315	109.376	23.939	31.009	1.00	34.20	N
ATOM	5979	CA	LYS	B	315	110.038	23.680	32.215	1.00	37.62	C
ATOM	5980	CB	LYS	B	315	109.096	23.661	33.381	1.00	34.70	C
ATOM	5981	CG	LYS	B	315	109.841	23.399	34.648	1.00	37.51	C
ATOM	5982	CD	LYS	B	315	109.470	24.462	35.467	1.00	35.02	C
ATOM	5983	CE	LYS	B	315	109.917	24.299	36.909	1.00	42.87	C
ATOM	5984	NZ	LYS	B	315	110.993	25.454	37.308	1.00	52.67	N
ATOM	5985	C	LYS	B	315	110.831	22.398	32.264	1.00	40.47	C
ATOM	5986	O	LYS	B	315	111.823	22.427	32.933	1.00	41.98	O
ATOM	5987	N	HIS	B	316	110.363	21.294	31.626	1.00	41.49	N
ATOM	5988	CA	HIS	B	316	111.023	19.890	31.670	1.00	38.04	C
ATOM	5989	CB	HIS	B	316	110.054	18.917	32.230	1.00	36.08	C
ATOM	5990	CG	HIS	B	316	109.471	19.352	33.577	1.00	38.16	C
ATOM	5991	ND1	HIS	B	316	110.091	19.196	34.756	1.00	35.95	N
ATOM	5992	CE1	HIS	B	316	109.313	19.574	35.761	1.00	32.66	C
ATOM	5993	NE2	HIS	B	316	108.205	20.046	35.260	1.00	35.18	N
ATOM	5994	CD2	HIS	B	316	108.288	19.934	33.893	1.00	44.41	C
ATOM	5995	C	HIS	B	316	111.587	19.490	30.296	1.00	39.84	C
ATOM	5996	O	HIS	B	316	111.161	18.757	29.526	1.00	40.46	O
ATOM	5997	N	PRO	B	317	112.648	20.104	29.910	1.00	42.76	N
ATOM	5998	CA	PRO	B	317	113.173	19.790	28.614	1.00	41.68	C
ATOM	5999	CB	PRO	B	317	114.419	20.688	28.539	1.00	40.08	C
ATOM	6000	CG	PRO	B	317	114.705	20.991	29.887	1.00	39.75	C
ATOM	6001	CD	PRO	B	317	113.416	21.198	30.665	1.00	42.04	C

177/514

Figure 2

ATOM	6002	C	PRO	B	317	113.478	18.383	28.430	1.00	44.20	C
ATOM	6003	O	PRO	B	317	113.316	17.771	27.441	1.00	44.39	O
ATOM	6004	N	GLU	B	318	113.929	17.833	29.475	1.00	47.74	N
ATOM	6005	CA	GLU	B	318	114.183	16.384	29.518	1.00	50.33	C
ATOM	6006	CB	GLU	B	318	114.543	15.991	31.048	1.00	54.31	C
ATOM	6007	CG	GLU	B	318	115.928	15.258	31.179	1.00	61.52	C
ATOM	6008	CD	GLU	B	318	116.944	15.866	32.272	1.00	77.92	C
ATOM	6009	OE1	GLU	B	318	118.182	16.189	31.867	1.00	78.52	O
ATOM	6010	OE2	GLU	B	318	116.617	15.958	33.602	1.00	75.56	O
ATOM	6011	C	GLU	B	318	112.931	15.564	29.028	1.00	46.04	C
ATOM	6012	O	GLU	B	318	113.067	14.738	28.189	1.00	48.65	O
ATOM	6013	N	VAL	B	319	111.748	15.798	29.536	1.00	40.01	N
ATOM	6014	CA	VAL	B	319	110.540	15.128	29.094	1.00	37.33	C
ATOM	6015	CB	VAL	B	319	109.491	15.661	29.910	1.00	35.72	C
ATOM	6016	CG1	VAL	B	319	108.182	15.097	29.474	1.00	36.88	C
ATOM	6017	CG2	VAL	B	319	109.798	15.358	31.337	1.00	30.19	C
ATOM	6018	C	VAL	B	319	110.197	15.529	27.657	1.00	37.76	C
ATOM	6019	O	VAL	B	319	109.783	14.701	26.777	1.00	38.33	O
ATOM	6020	N	THR	B	320	110.508	16.785	27.338	1.00	35.43	N
ATOM	6021	CA	THR	B	320	110.166	17.136	25.997	1.00	34.62	C
ATOM	6022	CB	THR	B	320	110.195	18.544	25.957	1.00	36.21	C
ATOM	6023	OG1	THR	B	320	109.068	19.057	26.816	1.00	36.28	O
ATOM	6024	CG2	THR	B	320	110.079	19.116	24.561	1.00	32.43	C
ATOM	6025	C	THR	B	320	110.956	16.363	25.061	1.00	33.70	C
ATOM	6026	O	THR	B	320	110.552	15.894	24.078	1.00	34.63	O
ATOM	6027	N	ALA	B	321	112.125	16.020	25.433	1.00	35.94	N
ATOM	6028	CA	ALA	B	321	112.966	15.289	24.408	1.00	34.66	C
ATOM	6029	CB	ALA	B	321	114.350	15.263	24.701	1.00	31.43	C
ATOM	6030	C	ALA	B	321	112.467	13.910	24.280	1.00	34.91	C
ATOM	6031	O	ALA	B	321	112.218	13.496	23.145	1.00	39.32	O
ATOM	6032	N	LYS	B	322	112.260	13.213	25.352	1.00	32.86	N
ATOM	6033	CA	LYS	B	322	111.754	11.883	25.112	1.00	34.68	C
ATOM	6034	CB	LYS	B	322	111.567	11.150	26.358	1.00	35.59	C
ATOM	6035	CG	LYS	B	322	112.815	10.897	27.085	1.00	34.84	C
ATOM	6036	CD	LYS	B	322	112.404	10.236	28.406	1.00	40.84	C
ATOM	6037	CE	LYS	B	322	113.521	10.285	29.408	1.00	46.72	C
ATOM	6038	NZ	LYS	B	322	113.037	9.647	30.732	1.00	61.50	N
ATOM	6039	C	LYS	B	322	110.480	11.825	24.229	1.00	34.19	C
ATOM	6040	O	LYS	B	322	110.416	11.088	23.253	1.00	34.11	O
ATOM	6041	N	VAL	B	323	109.562	12.742	24.445	1.00	33.96	N
ATOM	6042	CA	VAL	B	323	108.403	12.856	23.544	1.00	30.04	C
ATOM	6043	CB	VAL	B	323	107.506	14.071	23.909	1.00	25.83	C
ATOM	6044	CG1	VAL	B	323	106.348	14.146	23.018	1.00	28.67	C
ATOM	6045	CG2	VAL	B	323	107.034	13.776	25.249	1.00	26.89	C
ATOM	6046	C	VAL	B	323	108.873	13.055	22.204	1.00	31.79	C
ATOM	6047	O	VAL	B	323	108.386	12.430	21.286	1.00	35.62	O
ATOM	6048	N	GLN	B	324	109.774	13.926	22.005	1.00	31.80	N
ATOM	6049	CA	GLN	B	324	110.060	14.140	20.637	1.00	35.18	C
ATOM	6050	CB	GLN	B	324	110.983	15.380	20.414	1.00	35.95	C
ATOM	6051	CG	GLN	B	324	110.274	16.489	19.801	1.00	37.36	C
ATOM	6052	CD	GLN	B	324	110.848	17.844	20.102	1.00	43.87	C
ATOM	6053	OE1	GLN	B	324	110.445	18.814	19.513	1.00	44.59	O
ATOM	6054	NE2	GLN	B	324	111.800	17.911	21.024	1.00	40.35	N
ATOM	6055	C	GLN	B	324	110.611	12.904	20.056	1.00	38.13	C
ATOM	6056	O	GLN	B	324	110.251	12.629	18.839	1.00	39.63	O
ATOM	6057	N	GLU	B	325	111.374	12.071	20.856	1.00	39.78	N
ATOM	6058	CA	GLU	B	325	111.968	10.789	20.223	1.00	41.57	C
ATOM	6059	CB	GLU	B	325	112.720	9.931	21.123	1.00	45.73	C
ATOM	6060	CG	GLU	B	325	114.259	10.247	21.375	1.00	56.02	C
ATOM	6061	CD	GLU	B	325	114.898	9.572	22.726	1.00	66.74	C
ATOM	6062	OE1	GLU	B	325	114.938	10.175	23.918	1.00	66.20	O
ATOM	6063	OE2	GLU	B	325	115.397	8.370	22.610	1.00	76.45	O
ATOM	6064	C	GLU	B	325	110.853	9.944	19.816	1.00	42.39	C
ATOM	6065	O	GLU	B	325	110.737	9.487	18.698	1.00	44.18	O
ATOM	6066	N	GLU	B	326	109.893	9.798	20.683	1.00	41.15	N
ATOM	6067	CA	GLU	B	326	108.776	9.033	20.284	1.00	40.32	C
ATOM	6068	CB	GLU	B	326	107.803	9.024	21.426	1.00	44.41	C
ATOM	6069	CG	GLU	B	326	107.059	7.728	21.629	1.00	49.69	C
ATOM	6070	CD	GLU	B	326	106.656	7.437	23.043	1.00	49.05	C
ATOM	6071	OE1	GLU	B	326	107.369	6.688	23.657	1.00	53.58	O
ATOM	6072	OE2	GLU	B	326	105.600	7.862	23.476	1.00	54.47	O
ATOM	6073	C	GLU	B	326	108.146	9.579	19.029	1.00	41.02	C
ATOM	6074	O	GLU	B	326	107.819	8.871	18.099	1.00	44.67	O
ATOM	6075	N	ILE	B	327	107.914	10.848	18.866	1.00	40.75	N
ATOM	6076	CA	ILE	B	327	107.290	11.216	17.625	1.00	37.74	C
ATOM	6077	CB	ILE	B	327	106.967	12.701	17.670	1.00	39.21	C

Figure 2

ATOM	6078	CG1	ILE	B	327	106.108	13.084	18.898	1.00	34.25	C
ATOM	6079	CD1	ILE	B	327	105.704	14.495	18.985	1.00	26.88	C
ATOM	6080	CG2	ILE	B	327	106.315	13.213	16.467	1.00	35.91	C
ATOM	6081	C	ILE	B	327	108.203	10.926	16.463	1.00	39.03	C
ATOM	6082	O	ILE	B	327	107.787	10.424	15.470	1.00	37.15	O
ATOM	6083	N	GLU	B	328	109.487	11.236	16.507	1.00	42.90	N
ATOM	6084	CA	GLU	B	328	110.392	10.973	15.284	1.00	41.86	C
ATOM	6085	CB	GLU	B	328	111.789	10.977	15.536	1.00	42.34	C
ATOM	6086	CG	GLU	B	328	112.547	12.254	15.525	1.00	54.94	C
ATOM	6087	CD	GLU	B	328	112.500	12.936	14.264	1.00	68.27	C
ATOM	6088	OE1	GLU	B	328	113.180	13.995	14.229	1.00	72.66	O
ATOM	6089	OE2	GLU	B	328	111.808	12.396	13.329	1.00	80.92	O
ATOM	6090	C	GLU	B	328	110.334	9.600	14.859	1.00	43.45	C
ATOM	6091	O	GLU	B	328	110.405	9.375	13.724	1.00	42.61	O
ATOM	6092	N	ARG	B	329	110.325	8.616	15.818	1.00	44.09	N
ATOM	6093	CA	ARG	B	329	110.303	7.201	15.481	1.00	40.96	C
ATOM	6094	CB	ARG	B	329	110.904	6.442	16.586	1.00	44.26	C
ATOM	6095	CG	ARG	B	329	110.576	5.007	16.748	1.00	44.01	C
ATOM	6096	CD	ARG	B	329	111.516	4.430	17.814	1.00	43.11	C
ATOM	6097	NE	ARG	B	329	111.340	5.132	19.013	1.00	49.53	N
ATOM	6098	CZ	ARG	B	329	110.373	4.923	19.930	1.00	56.39	C
ATOM	6099	NH1	ARG	B	329	110.270	5.688	21.062	1.00	53.08	N
ATOM	6100	NH2	ARG	B	329	109.503	3.924	19.725	1.00	64.06	N
ATOM	6101	C	ARG	B	329	108.966	6.688	15.134	1.00	41.43	C
ATOM	6102	O	ARG	B	329	108.838	5.928	14.213	1.00	43.81	O
ATOM	6103	N	VAL	B	330	107.910	7.035	15.730	1.00	39.61	N
ATOM	6104	CA	VAL	B	330	106.657	6.335	15.323	1.00	38.47	C
ATOM	6105	CB	VAL	B	330	105.610	6.401	16.533	1.00	39.12	C
ATOM	6106	CG1	VAL	B	330	104.313	5.841	16.091	1.00	31.48	C
ATOM	6107	CG2	VAL	B	330	106.109	5.664	17.711	1.00	33.06	C
ATOM	6108	C	VAL	B	330	105.903	7.012	14.206	1.00	41.20	C
ATOM	6109	O	VAL	B	330	105.083	6.409	13.435	1.00	39.95	O
ATOM	6110	N	ILE	B	331	106.043	8.326	14.186	1.00	43.73	N
ATOM	6111	CA	ILE	B	331	105.508	9.159	13.087	1.00	46.75	C
ATOM	6112	CB	ILE	B	331	104.742	10.312	13.859	1.00	43.42	C
ATOM	6113	CG1	ILE	B	331	103.672	9.735	14.658	1.00	42.24	C
ATOM	6114	CD1	ILE	B	331	103.008	10.662	15.769	1.00	44.25	C
ATOM	6115	CG2	ILE	B	331	104.078	11.153	12.798	1.00	49.74	C
ATOM	6116	C	ILE	B	331	106.716	9.810	12.397	1.00	46.90	C
ATOM	6117	O	ILE	B	331	107.760	10.094	12.975	1.00	51.15	O
ATOM	6118	N	GLY	B	332	106.741	10.093	11.226	1.00	48.52	N
ATOM	6119	CA	GLY	B	332	108.021	10.797	10.939	1.00	48.93	C
ATOM	6120	C	GLY	B	332	107.880	12.285	10.924	1.00	48.86	C
ATOM	6121	O	GLY	B	332	107.181	12.693	11.707	1.00	46.81	O
ATOM	6122	N	ARG	B	333	108.466	13.061	9.990	1.00	52.77	N
ATOM	6123	CA	ARG	B	333	108.237	14.486	9.971	1.00	53.62	C
ATOM	6124	CB	ARG	B	333	109.458	15.172	9.576	1.00	56.46	C
ATOM	6125	CG	ARG	B	333	110.576	15.301	10.617	1.00	64.37	C
ATOM	6126	CD	ARG	B	333	110.992	16.730	10.914	1.00	74.80	C
ATOM	6127	NE	ARG	B	333	111.782	16.788	12.177	1.00	88.37	N
ATOM	6128	CZ	ARG	B	333	112.965	16.157	12.404	1.00	90.30	C
ATOM	6129	NH1	ARG	B	333	113.507	15.357	11.432	1.00	95.66	N
ATOM	6130	NH2	ARG	B	333	113.574	16.305	13.596	1.00	85.19	N
ATOM	6131	C	ARG	B	333	107.292	14.605	8.867	1.00	56.34	C
ATOM	6132	O	ARG	B	333	106.577	15.535	8.758	1.00	57.97	O
ATOM	6133	N	ASN	B	334	107.198	13.587	8.029	1.00	57.91	N
ATOM	6134	CA	ASN	B	334	106.295	13.753	6.933	1.00	59.00	C
ATOM	6135	CB	ASN	B	334	106.616	12.745	5.826	1.00	60.68	C
ATOM	6136	CG	ASN	B	334	108.123	12.969	5.298	1.00	66.92	C
ATOM	6137	OD1	ASN	B	334	108.993	12.047	5.329	1.00	79.46	O
ATOM	6138	ND2	ASN	B	334	108.452	14.209	4.978	1.00	68.58	N
ATOM	6139	C	ASN	B	334	104.865	13.750	7.344	1.00	55.63	C
ATOM	6140	O	ASN	B	334	104.402	14.771	7.564	1.00	57.81	O
ATOM	6141	N	ARG	B	335	104.176	12.644	7.473	1.00	50.76	N
ATOM	6142	CA	ARG	B	335	102.779	12.614	7.836	1.00	46.31	C
ATOM	6143	CB	ARG	B	335	102.270	11.144	7.878	1.00	45.96	C
ATOM	6144	CG	ARG	B	335	102.993	10.319	8.835	1.00	43.57	C
ATOM	6145	CD	ARG	B	335	102.538	8.828	9.020	1.00	47.67	C
ATOM	6146	NE	ARG	B	335	101.823	8.593	10.217	1.00	49.76	N
ATOM	6147	CZ	ARG	B	335	102.102	7.900	11.192	1.00	41.25	C
ATOM	6148	NH1	ARG	B	335	103.115	7.209	11.237	1.00	51.17	N
ATOM	6149	NH2	ARG	B	335	101.304	7.939	12.162	1.00	45.85	N
ATOM	6150	C	ARG	B	335	102.420	13.248	9.164	1.00	44.75	C
ATOM	6151	O	ARG	B	335	103.224	13.414	10.198	1.00	43.66	O
ATOM	6152	N	SER	B	336	101.185	13.582	9.260	1.00	41.62	N
ATOM	6153	CA	SER	B	336	100.804	14.075	10.546	1.00	39.66	C

Figure 2

ATOM	6154	CB	SER B 336	99.744	15.082	10.292	1.00	44.45	C
ATOM	6155	OG	SER B 336	98.693	14.480	9.725	1.00	44.75	O
ATOM	6156	C	SER B 336	100.282	13.002	11.489	1.00	36.54	C
ATOM	6157	O	SER B 336	100.015	11.787	11.063	1.00	37.19	O
ATOM	6158	N	PRO B 337	100.293	13.281	12.766	1.00	30.43	N
ATOM	6159	CA	PRO B 337	99.932	12.261	13.718	1.00	27.52	C
ATOM	6160	CB	PRO B 337	100.187	12.915	15.022	1.00	32.99	C
ATOM	6161	CG	PRO B 337	101.284	14.061	14.648	1.00	37.95	C
ATOM	6162	CD	PRO B 337	100.905	14.482	13.319	1.00	30.45	C
ATOM	6163	C	PRO B 337	98.541	11.860	13.693	1.00	27.53	C
ATOM	6164	O	PRO B 337	97.843	12.501	12.979	1.00	28.17	O
ATOM	6165	N	CYS B 338	98.148	10.740	14.327	1.00	25.41	N
ATOM	6166	CA	CYS B 338	96.773	10.315	14.311	1.00	25.89	C
ATOM	6167	CB	CYS B 338	96.378	9.719	13.107	1.00	28.50	C
ATOM	6168	SG	CYS B 338	97.019	7.962	12.916	1.00	40.26	S
ATOM	6169	C	CYS B 338	96.526	9.471	15.476	1.00	25.10	C
ATOM	6170	O	CYS B 338	97.475	9.062	16.083	1.00	27.04	O
ATOM	6171	N	MET B 339	95.297	9.382	15.954	1.00	25.57	N
ATOM	6172	CA	MET B 339	95.060	8.702	17.219	1.00	26.48	C
ATOM	6173	CB	MET B 339	93.636	8.573	17.353	1.00	28.31	C
ATOM	6174	CG	MET B 339	92.909	9.913	17.590	1.00	33.54	C
ATOM	6175	SD	MET B 339	93.908	10.779	18.753	1.00	33.60	S
ATOM	6176	CE	MET B 339	93.934	9.912	20.112	1.00	38.01	C
ATOM	6177	C	MET B 339	95.769	7.295	17.303	1.00	28.66	C
ATOM	6178	O	MET B 339	96.272	6.865	18.245	1.00	29.58	O
ATOM	6179	N	GLN B 340	95.839	6.523	16.282	1.00	33.29	N
ATOM	6180	CA	GLN B 340	96.455	5.229	16.343	1.00	32.33	C
ATOM	6181	CB	GLN B 340	96.474	4.525	15.013	1.00	36.29	C
ATOM	6182	CG	GLN B 340	95.254	3.553	14.753	1.00	37.37	C
ATOM	6183	CD	GLN B 340	95.254	3.045	13.322	1.00	44.98	C
ATOM	6184	OE1	GLN B 340	96.247	2.428	12.952	1.00	55.93	O
ATOM	6185	NE2	GLN B 340	94.134	3.216	12.565	1.00	44.71	N
ATOM	6186	C	GLN B 340	97.857	5.381	16.699	1.00	33.47	C
ATOM	6187	O	GLN B 340	98.360	4.336	17.149	1.00	38.64	O
ATOM	6188	N	ASP B 341	98.575	6.461	16.530	1.00	28.92	N
ATOM	6189	CA	ASP B 341	99.915	6.381	17.091	1.00	31.50	C
ATOM	6190	CB	ASP B 341	100.838	7.496	16.607	1.00	34.04	C
ATOM	6191	CG	ASP B 341	100.717	7.607	15.043	1.00	37.87	C
ATOM	6192	OD1	ASP B 341	100.937	6.561	14.361	1.00	44.23	O
ATOM	6193	OD2	ASP B 341	100.336	8.598	14.473	1.00	44.12	O
ATOM	6194	C	ASP B 341	100.073	6.313	18.579	1.00	32.43	C
ATOM	6195	O	ASP B 341	101.166	6.082	19.062	1.00	29.56	O
ATOM	6196	N	ARG B 342	98.979	6.589	19.286	1.00	30.65	N
ATOM	6197	CA	ARG B 342	99.129	6.799	20.614	1.00	31.72	C
ATOM	6198	CB	ARG B 342	97.909	7.577	21.252	1.00	32.04	C
ATOM	6199	CG	ARG B 342	98.015	7.691	22.767	1.00	30.84	C
ATOM	6200	CD	ARG B 342	97.129	8.486	23.254	1.00	33.09	C
ATOM	6201	NE	ARG B 342	95.842	8.048	23.004	1.00	26.13	N
ATOM	6202	CZ	ARG B 342	94.784	8.653	23.574	1.00	34.77	C
ATOM	6203	NH1	ARG B 342	94.996	9.754	24.335	1.00	35.50	N
ATOM	6204	NH2	ARG B 342	93.527	8.143	23.401	1.00	31.31	N
ATOM	6205	C	ARG B 342	99.564	5.560	21.320	1.00	34.15	C
ATOM	6206	O	ARG B 342	100.526	5.565	22.101	1.00	37.32	O
ATOM	6207	N	SER B 343	98.890	4.509	21.019	1.00	37.97	N
ATOM	6208	CA	SER B 343	99.166	3.200	21.533	1.00	38.86	C
ATOM	6209	CB	SER B 343	98.317	2.211	20.838	1.00	40.06	C
ATOM	6210	OG	SER B 343	99.110	2.218	19.694	1.00	56.60	O
ATOM	6211	C	SER B 343	100.515	2.762	21.314	1.00	37.44	C
ATOM	6212	O	SER B 343	100.801	1.874	21.940	1.00	44.43	O
ATOM	6213	N	HIS B 344	101.294	3.277	20.410	1.00	37.18	N
ATOM	6214	CA	HIS B 344	102.776	3.037	20.236	1.00	37.43	C
ATOM	6215	CB	HIS B 344	103.239	3.042	18.701	1.00	39.77	C
ATOM	6216	CG	HIS B 344	102.413	2.148	17.882	1.00	42.51	C
ATOM	6217	ND1	HIS B 344	102.162	0.877	18.357	1.00	53.27	N
ATOM	6218	CE1	HIS B 344	101.301	0.230	17.599	1.00	44.85	C
ATOM	6219	NE2	HIS B 344	100.988	1.082	16.697	1.00	46.83	N
ATOM	6220	CD2	HIS B 344	101.643	2.312	16.870	1.00	45.48	C
ATOM	6221	C	HIS B 344	103.570	4.246	20.853	1.00	38.89	C
ATOM	6222	O	HIS B 344	104.797	4.284	20.752	1.00	35.86	O
ATOM	6223	N	MET B 345	102.873	5.230	21.449	1.00	37.24	N
ATOM	6224	CA	MET B 345	103.647	6.295	21.959	1.00	37.78	C
ATOM	6225	CB	MET B 345	103.290	7.482	21.216	1.00	37.05	C
ATOM	6226	CG	MET B 345	103.812	7.455	19.854	1.00	33.25	C
ATOM	6227	SD	MET B 345	103.255	8.955	19.013	1.00	32.50	S
ATOM	6228	CE	MET B 345	104.520	9.988	19.427	1.00	25.22	C
ATOM	6229	C	MET B 345	103.374	6.512	23.509	1.00	38.95	C

180/514

Figure 2

ATOM	6230	O	MET	B	345	102.969	7.533	23.952	1.00	36.68	O
ATOM	6231	N	PRO	B	346	103.759	5.531	24.321	1.00	37.02	N
ATOM	6232	CA	PRO	B	346	103.344	5.451	25.684	1.00	32.08	C
ATOM	6233	CB	PRO	B	346	103.939	4.082	26.080	1.00	31.27	C
ATOM	6234	CG	PRO	B	346	105.099	3.962	25.310	1.00	31.77	C
ATOM	6235	CD	PRO	B	346	104.826	4.560	23.938	1.00	35.83	C
ATOM	6236	C	PRO	B	346	103.957	6.586	26.417	1.00	31.22	C
ATOM	6237	O	PRO	B	346	103.277	7.135	27.373	1.00	35.50	O
ATOM	6238	N	TYR	B	347	105.196	6.931	26.124	1.00	27.29	N
ATOM	6239	CA	TYR	B	347	105.767	7.965	26.934	1.00	30.13	C
ATOM	6240	CB	TYR	B	347	107.193	8.251	26.601	1.00	30.53	C
ATOM	6241	CG	TYR	B	347	107.834	9.203	27.541	1.00	33.44	C
ATOM	6242	CD1	TYR	B	347	108.219	8.838	28.777	1.00	38.40	C
ATOM	6243	CE1	TYR	B	347	108.844	9.845	29.698	1.00	36.04	C
ATOM	6244	CZ	TYR	B	347	109.051	11.122	29.277	1.00	34.98	C
ATOM	6245	OH	TYR	B	347	109.566	12.059	30.070	1.00	37.22	O
ATOM	6246	CE2	TYR	B	347	108.660	11.445	28.030	1.00	38.62	C
ATOM	6247	CD2	TYR	B	347	108.052	10.501	27.204	1.00	37.42	C
ATOM	6248	C	TYR	B	347	104.891	9.251	26.781	1.00	31.53	C
ATOM	6249	O	TYR	B	347	104.489	9.880	27.735	1.00	33.54	O
ATOM	6250	N	THR	B	348	104.592	9.602	25.594	1.00	31.52	N
ATOM	6251	CA	THR	B	348	103.743	10.716	25.339	1.00	36.42	C
ATOM	6252	CB	THR	B	348	103.497	10.845	23.807	1.00	37.44	C
ATOM	6253	OG1	THR	B	348	104.757	11.041	23.279	1.00	37.55	O
ATOM	6254	CG2	THR	B	348	102.745	12.094	23.478	1.00	37.43	C
ATOM	6255	C	THR	B	348	102.413	10.604	26.054	1.00	36.19	C
ATOM	6256	O	THR	B	348	102.119	11.520	26.787	1.00	42.59	O
ATOM	6257	N	ASP	B	349	101.628	9.548	25.841	1.00	32.09	N
ATOM	6258	CA	ASP	B	349	100.408	9.359	26.512	1.00	31.20	C
ATOM	6259	CB	ASP	B	349	100.012	7.954	26.157	1.00	33.91	C
ATOM	6260	CG	ASP	B	349	98.477	7.580	26.204	1.00	39.40	C
ATOM	6261	OD1	ASP	B	349	97.652	8.421	26.703	1.00	51.70	O
ATOM	6262	OD2	ASP	B	349	98.076	6.421	25.856	1.00	35.41	O
ATOM	6263	C	ASP	B	349	100.682	9.578	27.976	1.00	30.87	C
ATOM	6264	O	ASP	B	349	99.859	10.112	28.761	1.00	32.16	O
ATOM	6265	N	ALA	B	350	101.836	9.177	28.474	1.00	30.80	N
ATOM	6266	CA	ALA	B	350	102.034	9.458	29.917	1.00	28.60	C
ATOM	6267	CB	ALA	B	350	103.222	8.724	30.339	1.00	33.08	C
ATOM	6268	C	ALA	B	350	102.299	10.867	30.105	1.00	29.57	C
ATOM	6269	O	ALA	B	350	101.781	11.452	31.084	1.00	35.21	O
ATOM	6270	N	VAL	B	351	103.005	11.577	29.196	1.00	24.12	N
ATOM	6271	CA	VAL	B	351	103.076	13.010	29.437	1.00	21.99	C
ATOM	6272	CB	VAL	B	351	103.971	13.677	28.469	1.00	23.84	C
ATOM	6273	CG1	VAL	B	351	104.010	14.958	28.721	1.00	25.91	C
ATOM	6274	CG2	VAL	B	351	105.427	13.206	28.679	1.00	27.35	C
ATOM	6275	C	VAL	B	351	101.603	13.620	29.397	1.00	21.89	C
ATOM	6276	O	VAL	B	351	101.227	14.501	30.215	1.00	23.17	O
ATOM	6277	N	VAL	B	352	100.734	13.312	28.480	1.00	23.79	N
ATOM	6278	CA	VAL	B	352	99.455	14.086	28.514	1.00	25.37	C
ATOM	6279	CB	VAL	B	352	98.660	13.808	27.362	1.00	29.21	C
ATOM	6280	CG1	VAL	B	352	97.420	14.643	27.356	1.00	30.79	C
ATOM	6281	CG2	VAL	B	352	99.504	14.165	25.975	1.00	28.05	C
ATOM	6282	C	VAL	B	352	98.711	13.794	29.738	1.00	26.68	C
ATOM	6283	O	VAL	B	352	98.286	14.660	30.426	1.00	30.08	O
ATOM	6284	N	HIS	B	353	98.689	12.546	30.196	1.00	29.05	N
ATOM	6285	CA	HIS	B	353	97.990	12.183	31.409	1.00	26.78	C
ATOM	6286	CB	HIS	B	353	98.084	10.634	31.677	1.00	24.51	C
ATOM	6287	CG	HIS	B	353	97.153	9.831	30.896	1.00	22.85	C
ATOM	6288	ND1	HIS	B	353	95.881	9.463	31.431	1.00	23.11	N
ATOM	6289	CE1	HIS	B	353	95.226	8.839	30.407	1.00	23.10	C
ATOM	6290	NE2	HIS	B	353	95.992	8.808	29.317	1.00	21.86	N
ATOM	6291	CD2	HIS	B	353	97.201	9.447	29.561	1.00	19.97	C
ATOM	6292	C	HIS	B	353	98.593	12.961	32.553	1.00	26.47	C
ATOM	6293	O	HIS	B	353	97.947	13.433	33.444	1.00	27.98	O
ATOM	6294	N	GLU	B	354	99.891	12.979	32.622	1.00	29.31	N
ATOM	6295	CA	GLU	B	354	100.463	13.710	33.836	1.00	30.26	C
ATOM	6296	CB	GLU	B	354	101.918	13.507	34.016	1.00	28.81	C
ATOM	6297	CG	GLU	B	354	102.645	14.105	35.265	1.00	31.39	C
ATOM	6298	CD	GLU	B	354	102.129	13.601	36.521	1.00	36.05	C
ATOM	6299	OE1	GLU	B	354	101.176	12.926	36.338	1.00	31.38	O
ATOM	6300	OE2	GLU	B	354	102.675	13.817	37.654	1.00	35.07	O
ATOM	6301	C	GLU	B	354	100.141	15.161	33.701	1.00	30.92	C
ATOM	6302	O	GLU	B	354	99.887	15.687	34.817	1.00	34.48	O
ATOM	6303	N	VAL	B	355	100.012	15.795	32.466	1.00	24.88	N
ATOM	6304	CA	VAL	B	355	99.678	17.122	32.509	1.00	21.42	C
ATOM	6305	CB	VAL	B	355	99.716	17.715	31.132	1.00	24.56	C

Figure 2

ATOM	6306	CG1	VAL	B	355	99.084	19.094	31.187	1.00	29.40	C
ATOM	6307	CG2	VAL	B	355	101.071	17.919	30.530	1.00	26.35	C
ATOM	6308	C	VAL	B	355	98.329	17.238	33.151	1.00	23.30	C
ATOM	6309	O	VAL	B	355	98.095	17.949	34.026	1.00	22.96	O
ATOM	6310	N	GLN	B	356	97.287	16.616	32.642	1.00	26.45	N
ATOM	6311	CA	GLN	B	356	95.986	16.798	33.187	1.00	23.18	C
ATOM	6312	CB	GLN	B	356	95.025	15.834	32.473	1.00	23.70	C
ATOM	6313	CG	GLN	B	356	94.954	15.954	31.045	1.00	27.10	C
ATOM	6314	CD	GLN	B	356	93.529	15.645	30.573	1.00	30.99	C
ATOM	6315	OE1	GLN	B	356	93.374	14.616	30.058	1.00	31.55	O
ATOM	6316	NE2	GLN	B	356	92.521	16.485	30.783	1.00	27.70	N
ATOM	6317	C	GLN	B	356	95.995	16.503	34.644	1.00	26.90	C
ATOM	6318	O	GLN	B	356	95.444	17.152	35.421	1.00	35.44	O
ATOM	6319	N	ARG	B	357	96.582	15.469	35.137	1.00	32.11	N
ATOM	6320	CA	ARG	B	357	96.580	15.067	36.586	1.00	30.29	C
ATOM	6321	CB	ARG	B	357	97.540	13.808	36.846	1.00	29.40	C
ATOM	6322	CG	ARG	B	357	97.257	13.202	38.245	1.00	28.85	C
ATOM	6323	CD	ARG	B	357	98.291	12.472	38.780	1.00	23.84	C
ATOM	6324	NE	ARG	B	357	99.511	13.194	38.790	1.00	27.71	N
ATOM	6325	CZ	ARG	B	357	99.868	13.944	39.796	1.00	33.47	C
ATOM	6326	NH1	ARG	B	357	100.985	14.605	39.794	1.00	31.91	N
ATOM	6327	NH2	ARG	B	357	99.062	14.091	40.810	1.00	34.58	N
ATOM	6328	C	ARG	B	357	97.124	16.096	37.439	1.00	29.42	C
ATOM	6329	O	ARG	B	357	96.527	16.342	38.356	1.00	35.70	O
ATOM	6330	N	TYR	B	358	98.301	16.564	37.164	1.00	30.38	N
ATOM	6331	CA	TYR	B	358	99.055	17.522	37.966	1.00	33.09	C
ATOM	6332	CB	TYR	B	358	100.408	17.754	37.342	1.00	34.70	C
ATOM	6333	CG	TYR	B	358	101.262	18.856	37.917	1.00	37.59	C
ATOM	6334	CD1	TYR	B	358	101.205	20.079	37.414	1.00	43.12	C
ATOM	6335	CE1	TYR	B	358	102.009	21.090	37.915	1.00	37.26	C
ATOM	6336	C2	TYR	B	358	102.854	20.916	38.902	1.00	34.77	C
ATOM	6337	OH	TYR	B	358	103.523	22.093	39.351	1.00	41.60	O
ATOM	6338	CE2	TYR	B	358	103.021	19.746	39.484	1.00	36.38	C
ATOM	6339	CD2	TYR	B	358	102.208	18.634	38.921	1.00	43.50	C
ATOM	6340	C	TYR	B	358	98.323	18.818	38.007	1.00	32.08	C
ATOM	6341	O	TYR	B	358	98.295	19.328	39.063	1.00	33.82	O
ATOM	6342	N	ILE	B	359	97.784	19.340	36.909	1.00	27.48	N
ATOM	6343	CA	ILE	B	359	97.153	20.693	36.900	1.00	24.53	C
ATOM	6344	CB	ILE	B	359	97.014	21.327	35.560	1.00	18.66	C
ATOM	6345	CG1	ILE	B	359	96.101	20.604	34.751	1.00	21.91	C
ATOM	6346	CD1	ILE	B	359	96.197	21.131	33.234	1.00	21.82	C
ATOM	6347	CG2	ILE	B	359	98.338	21.574	34.720	1.00	26.99	C
ATOM	6348	C	ILE	B	359	95.800	20.731	37.549	1.00	27.11	C
ATOM	6349	O	ILE	B	359	95.271	21.671	37.845	1.00	25.17	O
ATOM	6350	N	ASP	B	360	95.155	19.653	37.693	1.00	27.33	N
ATOM	6351	CA	ASP	B	360	93.869	19.714	38.327	1.00	26.30	C
ATOM	6352	CB	ASP	B	360	94.119	19.504	39.825	1.00	26.81	C
ATOM	6353	CG	ASP	B	360	92.841	19.325	40.593	1.00	35.85	C
ATOM	6354	OD1	ASP	B	360	92.684	19.658	41.855	1.00	50.73	O
ATOM	6355	OD2	ASP	B	360	91.830	18.943	39.916	1.00	57.29	O
ATOM	6356	C	ASP	B	360	93.044	20.916	38.129	1.00	26.53	C
ATOM	6357	O	ASP	B	360	92.777	21.591	39.040	1.00	32.47	O
ATOM	6358	N	LEU	B	361	92.586	21.184	36.958	1.00	27.48	N
ATOM	6359	CA	LEU	B	361	91.846	22.198	36.476	1.00	25.40	C
ATOM	6360	CB	LEU	B	361	91.776	22.093	34.923	1.00	22.51	C
ATOM	6361	CG	LEU	B	361	92.650	23.047	34.306	1.00	25.72	C
ATOM	6362	CD1	LEU	B	361	93.967	23.074	34.750	1.00	22.74	C
ATOM	6363	CD2	LEU	B	361	92.598	22.948	32.996	1.00	33.53	C
ATOM	6364	C	LEU	B	361	90.493	22.297	37.022	1.00	30.55	C
ATOM	6365	O	LEU	B	361	89.972	23.413	37.090	1.00	34.20	O
ATOM	6366	N	LEU	B	362	89.771	21.295	37.412	1.00	29.76	N
ATOM	6367	CA	LEU	B	362	88.467	21.596	37.949	1.00	22.30	C
ATOM	6368	CB	LEU	B	362	87.601	20.936	37.087	1.00	22.01	C
ATOM	6369	CG	LEU	B	362	87.539	21.829	35.823	1.00	33.11	C
ATOM	6370	CD1	LEU	B	362	86.434	21.463	34.764	1.00	34.94	C
ATOM	6371	CD2	LEU	B	362	87.016	23.130	35.994	1.00	27.69	C
ATOM	6372	C	LEU	B	362	88.439	20.834	39.192	1.00	26.66	C
ATOM	6373	O	LEU	B	362	87.768	19.761	39.274	1.00	30.03	O
ATOM	6374	N	PRO	B	363	89.059	21.330	40.218	1.00	28.99	N
ATOM	6375	CA	PRO	B	363	89.300	20.713	41.547	1.00	29.80	C
ATOM	6376	CB	PRO	B	363	89.989	21.897	42.378	1.00	29.83	C
ATOM	6377	CG	PRO	B	363	90.459	22.792	41.564	1.00	32.59	C
ATOM	6378	CD	PRO	B	363	89.673	22.676	40.162	1.00	32.82	C
ATOM	6379	C	PRO	B	363	88.044	20.191	42.150	1.00	29.28	C
ATOM	6380	O	PRO	B	363	88.029	19.316	42.897	1.00	35.27	O
ATOM	6381	N	THR	B	364	86.990	20.780	41.905	1.00	31.89	N

Figure 2

ATOM	6382	CA	THR B 364	85.637	20.286	42.304	1.00	32.11	C
ATOM	6383	CB	THR B 364	84.973	21.316	43.273	1.00	32.37	C
ATOM	6384	OG1	THR B 364	84.831	22.628	42.795	1.00	35.85	O
ATOM	6385	CG2	THR B 364	85.707	21.579	44.354	1.00	29.09	C
ATOM	6386	C	THR B 364	85.006	20.355	40.901	1.00	34.80	C
ATOM	6387	O	THR B 364	84.981	21.583	39.966	1.00	41.88	O
ATOM	6388	N	SER B 365	84.796	19.250	40.384	1.00	33.30	N
ATOM	6389	CA	SER B 365	84.264	19.147	39.071	1.00	35.29	C
ATOM	6390	CB	SER B 365	83.817	17.693	39.017	1.00	34.47	C
ATOM	6391	OG	SER B 365	82.645	17.514	38.313	1.00	35.77	O
ATOM	6392	C	SER B 365	83.070	20.052	39.032	1.00	32.61	C
ATOM	6393	O	SER B 365	82.931	20.528	39.997	1.00	47.51	O
ATOM	6394	N	LEU B 366	82.235	20.239	38.162	1.00	27.70	N
ATOM	6395	CA	LEU B 366	81.123	20.897	38.355	1.00	28.50	C
ATOM	6396	CB	LEU B 366	80.233	21.022	37.080	1.00	29.39	C
ATOM	6397	CG	LEU B 366	80.481	22.089	36.096	1.00	32.42	C
ATOM	6398	CD1	LEU B 366	81.879	22.281	35.928	1.00	27.83	C
ATOM	6399	CD2	LEU B 366	79.845	21.663	34.674	1.00	32.01	C
ATOM	6400	C	LEU B 366	80.266	20.269	39.384	1.00	30.73	C
ATOM	6401	O	LEU B 366	80.210	19.172	39.407	1.00	35.79	O
ATOM	6402	N	PRO B 367	79.436	20.956	40.085	1.00	32.78	N
ATOM	6403	CA	PRO B 367	78.586	20.426	41.112	1.00	35.80	C
ATOM	6404	CB	PRO B 367	77.927	21.758	41.772	1.00	38.40	C
ATOM	6405	CG	PRO B 367	78.869	22.733	41.429	1.00	40.66	C
ATOM	6406	CD	PRO B 367	79.231	22.399	39.901	1.00	32.47	C
ATOM	6407	C	PRO B 367	77.462	19.598	40.769	1.00	34.91	C
ATOM	6408	O	PRO B 367	76.714	19.952	39.840	1.00	32.43	O
ATOM	6409	N	HIS B 368	77.265	18.547	41.672	1.00	35.94	N
ATOM	6410	CA	HIS B 368	76.228	17.553	41.472	1.00	34.16	C
ATOM	6411	CB	HIS B 368	76.912	16.269	41.694	1.00	37.39	C
ATOM	6412	CG	HIS B 368	77.754	15.692	40.545	1.00	34.21	C
ATOM	6413	ND1	HIS B 368	77.433	14.543	39.920	1.00	31.77	N
ATOM	6414	CE1	HIS B 368	78.317	14.337	38.954	1.00	37.86	C
ATOM	6415	NE2	HIS B 368	79.232	15.277	38.971	1.00	31.30	N
ATOM	6416	CD2	HIS B 368	78.904	16.117	39.983	1.00	33.76	C
ATOM	6417	C	HIS B 368	75.124	17.711	42.550	1.00	37.36	C
ATOM	6418	O	HIS B 368	75.126	18.435	43.432	1.00	37.73	O
ATOM	6419	N	ALA B 369	74.101	16.977	42.470	1.00	40.21	N
ATOM	6420	CA	ALA B 369	73.065	17.073	43.460	1.00	44.02	C
ATOM	6421	CB	ALA B 369	72.022	18.027	43.051	1.00	42.78	C
ATOM	6422	C	ALA B 369	72.358	15.736	43.538	1.00	45.75	C
ATOM	6423	O	ALA B 369	72.104	15.136	42.458	1.00	47.82	O
ATOM	6424	N	VAL B 370	72.028	15.319	44.772	1.00	45.56	N
ATOM	6425	CA	VAL B 370	71.452	13.999	44.972	1.00	47.96	C
ATOM	6426	CB	VAL B 370	71.529	13.513	46.434	1.00	45.96	C
ATOM	6427	CG1	VAL B 370	72.910	13.254	46.803	1.00	44.89	C
ATOM	6428	CG2	VAL B 370	71.007	14.518	47.350	1.00	55.24	C
ATOM	6429	C	VAL B 370	70.097	13.954	44.397	1.00	48.45	C
ATOM	6430	O	VAL B 370	69.315	14.828	44.594	1.00	45.56	O
ATOM	6431	N	THR B 371	69.841	12.924	43.652	1.00	50.53	N
ATOM	6432	CA	THR B 371	68.591	12.958	42.898	1.00	53.46	C
ATOM	6433	CB	THR B 371	68.916	12.196	41.673	1.00	54.06	C
ATOM	6434	OG1	THR B 371	68.026	12.462	40.721	1.00	52.36	O
ATOM	6435	CG2	THR B 371	68.894	10.640	41.869	1.00	63.01	C
ATOM	6436	C	THR B 371	67.387	12.430	43.608	1.00	54.67	C
ATOM	6437	O	THR B 371	66.350	12.290	43.077	1.00	55.42	O
ATOM	6438	N	CYS B 372	67.502	12.140	44.860	1.00	57.41	N
ATOM	6439	CA	CYS B 372	66.387	11.518	45.582	1.00	57.87	C
ATOM	6440	CB	CYS B 372	66.083	10.122	45.066	1.00	57.09	C
ATOM	6441	SG	CYS B 372	67.391	8.811	45.096	1.00	59.55	S
ATOM	6442	C	CYS B 372	66.943	11.336	46.960	1.00	60.50	C
ATOM	6443	O	CYS B 372	68.227	11.191	47.127	1.00	60.23	O
ATOM	6444	N	ASP B 373	66.054	11.340	47.954	1.00	62.02	N
ATOM	6445	CA	ASP B 373	66.563	11.111	49.333	1.00	63.98	C
ATOM	6446	CB	ASP B 373	65.403	10.924	50.231	1.00	65.07	C
ATOM	6447	CG	ASP B 373	64.549	12.246	50.326	1.00	66.28	C
ATOM	6448	OD1	ASP B 373	63.323	12.266	50.027	1.00	73.53	O
ATOM	6449	OD2	ASP B 373	65.033	13.294	50.663	1.00	56.39	O
ATOM	6450	C	ASP B 373	67.366	9.860	49.366	1.00	63.03	C
ATOM	6451	O	ASP B 373	66.790	8.894	49.131	1.00	62.71	O
ATOM	6452	N	ILE B 374	68.668	9.895	49.623	1.00	62.03	N
ATOM	6453	CA	ILE B 374	69.444	8.723	49.590	1.00	61.50	C
ATOM	6454	CB	ILE B 374	70.617	8.810	48.512	1.00	61.66	C
ATOM	6455	CG1	ILE B 374	71.195	7.419	48.219	1.00	63.87	C
ATOM	6456	CD1	ILE B 374	70.108	6.390	47.843	1.00	73.47	C
ATOM	6457	CG2	ILE B 374	71.886	9.580	49.024	1.00	53.17	C

183/514

Figure 2

ATOM	6458	C	ILE	B	374	70.099	8.587	50.904	1.00	64.43	C
ATOM	6459	O	ILE	B	374	70.142	9.561	51.643	1.00	61.69	O
ATOM	6460	N	LYS	B	375	70.654	7.368	51.206	1.00	67.14	N
ATOM	6461	CA	LYS	B	375	71.422	7.193	52.427	1.00	68.63	C
ATOM	6462	CB	LYS	B	375	70.745	6.188	53.344	1.00	71.83	C
ATOM	6463	CG	LYS	B	375	71.099	6.217	54.868	1.00	78.66	C
ATOM	6464	CD	LYS	B	375	70.473	4.727	55.533	1.00	86.26	C
ATOM	6465	CE	LYS	B	375	70.681	4.582	57.108	1.00	88.57	C
ATOM	6466	NZ	LYS	B	375	70.251	3.187	57.686	1.00	93.39	N
ATOM	6467	C	LYS	B	375	72.818	6.735	52.066	1.00	65.28	C
ATOM	6468	O	LYS	B	375	72.946	5.729	51.414	1.00	61.94	O
ATOM	6469	N	PHE	B	376	73.815	7.498	52.534	1.00	62.32	N
ATOM	6470	CA	PHE	B	376	75.171	7.304	52.169	1.00	60.89	C
ATOM	6471	CB	PHE	B	376	75.612	8.533	51.212	1.00	59.92	C
ATOM	6472	CG	PHE	B	376	76.974	8.468	50.682	1.00	52.09	C
ATOM	6473	CD1	PHE	B	376	77.268	7.615	49.773	1.00	56.56	C
ATOM	6474	CE1	PHE	B	376	78.557	7.546	49.265	1.00	58.71	C
ATOM	6475	CZ	PHE	B	376	79.488	8.360	49.722	1.00	60.93	C
ATOM	6476	CE2	PHE	B	376	79.181	9.257	50.673	1.00	57.15	C
ATOM	6477	CD2	PHE	B	376	77.913	9.282	51.107	1.00	52.64	C
ATOM	6478	C	PHE	B	376	76.062	7.175	53.322	1.00	60.25	C
ATOM	6479	O	PHE	B	376	76.039	8.023	54.225	1.00	59.39	O
ATOM	6480	N	ARG	B	377	76.885	6.144	53.306	1.00	62.62	N
ATOM	6481	CA	ARG	B	377	77.821	5.946	54.416	1.00	65.32	C
ATOM	6482	CB	ARG	B	377	79.085	6.795	54.242	1.00	63.93	C
ATOM	6483	CG	ARG	B	377	79.639	6.630	52.820	1.00	66.53	C
ATOM	6484	CD	ARG	B	377	80.742	5.609	52.652	1.00	50.05	C
ATOM	6485	NE	ARG	B	377	81.911	6.165	53.210	1.00	49.30	N
ATOM	6486	CZ	ARG	B	377	82.959	6.159	52.482	1.00	49.36	C
ATOM	6487	NH1	ARG	B	377	82.887	5.567	51.309	1.00	52.35	N
ATOM	6488	NH2	ARG	B	377	84.109	6.672	52.929	1.00	49.07	N
ATOM	6489	C	ARG	B	377	77.047	6.114	55.766	1.00	66.61	C
ATOM	6490	O	ARG	B	377	77.562	6.667	56.737	1.00	65.46	O
ATOM	6491	N	ASN	B	378	75.785	5.628	55.798	1.00	68.90	N
ATOM	6492	CA	ASN	B	378	75.005	5.803	56.987	1.00	70.66	C
ATOM	6493	CB	ASN	B	378	75.642	5.077	58.204	1.00	72.20	C
ATOM	6494	CG	ASN	B	378	74.727	5.064	59.416	1.00	81.00	C
ATOM	6495	OD1	ASN	B	378	75.138	5.562	60.510	1.00	87.51	O
ATOM	6496	N02	ASN	B	378	73.382	4.597	59.232	1.00	89.92	N
ATOM	6497	C	ASN	B	378	74.968	7.255	57.305	1.00	69.38	C
ATOM	6498	O	ASN	B	378	75.362	7.633	58.391	1.00	69.71	O
ATOM	6499	N	TYR	B	379	74.508	8.064	56.361	1.00	68.88	N
ATOM	6500	CA	TYR	B	379	74.380	9.443	56.610	1.00	68.26	C
ATOM	6501	CB	TYR	B	379	75.467	10.102	56.048	1.00	67.11	C
ATOM	6502	CG	TYR	B	379	76.717	10.077	56.931	1.00	68.42	C
ATOM	6503	CD1	TYR	B	379	77.893	9.513	56.584	1.00	62.45	C
ATOM	6504	CE1	TYR	B	379	78.969	9.625	57.455	1.00	59.39	C
ATOM	6505	CZ	TYR	B	379	78.809	10.234	58.601	1.00	62.71	C
ATOM	6506	OH	TYR	B	379	79.746	10.423	59.531	1.00	66.77	O
ATOM	6507	CE2	TYR	B	379	77.690	10.699	58.948	1.00	60.06	C
ATOM	6508	CD2	TYR	B	379	76.679	10.654	58.157	1.00	66.48	C
ATOM	6509	C	TYR	B	379	73.128	10.186	56.251	1.00	70.84	C
ATOM	6510	O	TYR	B	379	72.610	10.958	57.185	1.00	79.39	O
ATOM	6511	N	LEU	B	380	72.565	10.020	55.039	1.00	69.86	N
ATOM	6512	CA	LEU	B	380	71.366	10.775	54.638	1.00	70.63	C
ATOM	6513	CB	LEU	B	380	70.260	10.643	55.612	1.00	70.23	C
ATOM	6514	CG	LEU	B	380	69.785	11.709	56.483	1.00	74.56	C
ATOM	6515	CD1	LEU	B	380	68.282	12.188	56.049	1.00	82.10	C
ATOM	6516	CD2	LEU	B	380	69.903	11.385	58.031	1.00	79.32	C
ATOM	6517	C	LEU	B	380	71.473	12.229	54.147	1.00	68.97	C
ATOM	6518	O	LEU	B	380	71.575	13.196	54.843	1.00	65.73	O
ATOM	6519	N	ILE	B	381	71.371	12.249	52.847	1.00	66.78	N
ATOM	6520	CA	ILE	B	381	71.239	13.383	52.126	1.00	63.10	C
ATOM	6521	CB	ILE	B	381	72.249	13.409	51.082	1.00	63.25	C
ATOM	6522	CG1	ILE	B	381	73.646	13.077	51.542	1.00	60.56	C
ATOM	6523	CD1	ILE	B	381	74.288	12.081	50.668	1.00	57.37	C
ATOM	6524	CG2	ILE	B	381	72.305	14.982	50.532	1.00	70.30	C
ATOM	6525	C	ILE	B	381	69.795	13.421	51.532	1.00	62.19	C
ATOM	6526	O	ILE	B	381	69.273	12.559	50.760	1.00	59.67	O
ATOM	6527	N	PRO	B	382	69.158	14.502	51.912	1.00	60.19	N
ATOM	6528	CA	PRO	B	382	67.855	14.834	51.349	1.00	57.25	C
ATOM	6529	CB	PRO	B	382	67.394	15.852	52.255	1.00	56.73	C
ATOM	6530	CG	PRO	B	382	68.788	16.597	52.824	1.00	60.86	C
ATOM	6531	CD	PRO	B	382	69.670	15.506	52.919	1.00	59.75	C
ATOM	6532	C	PRO	B	382	67.967	15.288	49.886	1.00	57.11	C
ATOM	6533	O	PRO	B	382	68.934	15.990	49.550	1.00	53.51	O

Figure 2

ATOM	6534	N	LYS	B	383	67.030	14.690	49.057	1.00	55.92	N
ATOM	6535	CA	LYS	B	383	66.845	14.855	47.696	1.00	52.81	C
ATOM	6536	CB	LYS	B	383	65.489	14.438	47.395	1.00	54.10	C
ATOM	6537	CG	LYS	B	383	65.090	14.980	46.117	1.00	59.95	C
ATOM	6538	CD	LYS	B	383	63.611	14.578	45.603	1.00	65.71	C
ATOM	6539	CE	LYS	B	383	63.433	15.412	44.164	1.00	64.99	C
ATOM	6540	NZ	LYS	B	383	62.122	15.173	43.434	1.00	61.06	N
ATOM	6541	C	LYS	B	383	66.937	16.302	47.338	1.00	51.46	C
ATOM	6542	O	LYS	B	383	66.350	17.134	47.921	1.00	54.68	O
ATOM	6543	N	GLY	B	384	67.775	16.612	46.394	1.00	47.24	N
ATOM	6544	CA	GLY	B	384	68.112	17.932	45.967	1.00	41.91	C
ATOM	6545	C	GLY	B	384	69.362	18.459	46.547	1.00	40.66	C
ATOM	6546	O	GLY	B	384	69.795	19.459	46.082	1.00	42.64	O
ATOM	6547	N	THR	B	385	69.999	17.865	47.532	1.00	39.77	N
ATOM	6548	CA	THR	B	385	71.120	18.524	48.192	1.00	38.84	C
ATOM	6549	CB	THR	B	385	71.617	17.733	49.442	1.00	40.16	C
ATOM	6550	OG1	THR	B	385	70.611	17.577	50.487	1.00	40.26	O
ATOM	6551	CG2	THR	B	385	72.707	18.496	50.080	1.00	40.64	C
ATOM	6552	C	THR	B	385	72.326	18.650	47.289	1.00	41.47	C
ATOM	6553	O	THR	B	385	72.795	17.788	46.685	1.00	43.37	O
ATOM	6554	N	THR	B	386	72.904	19.814	47.222	1.00	40.64	N
ATOM	6555	CA	THR	B	386	74.124	19.989	46.513	1.00	36.14	C
ATOM	6556	CB	THR	B	386	74.545	21.401	46.500	1.00	35.24	C
ATOM	6557	OG1	THR	B	386	73.503	22.236	45.888	1.00	37.32	O
ATOM	6558	CG2	THR	B	386	75.684	21.524	45.611	1.00	32.60	C
ATOM	6559	C	THR	B	386	75.282	19.245	46.893	1.00	34.63	C
ATOM	6560	O	THR	B	386	75.521	19.239	47.968	1.00	40.10	O
ATOM	6561	N	ILE	B	387	76.064	18.583	45.990	1.00	35.01	N
ATOM	6562	CA	ILE	B	387	77.281	17.746	46.273	1.00	31.92	C
ATOM	6563	CB	ILE	B	387	76.997	16.479	45.700	1.00	30.56	C
ATOM	6564	CG1	ILE	B	387	75.523	16.137	46.010	1.00	35.46	C
ATOM	6565	CD1	ILE	B	387	75.376	15.496	47.468	1.00	39.17	C
ATOM	6566	CG2	ILE	B	387	77.910	15.431	46.147	1.00	29.08	C
ATOM	6567	C	ILE	B	387	78.526	18.278	45.592	1.00	34.05	C
ATOM	6568	O	ILE	B	387	78.464	18.519	44.442	1.00	36.19	O
ATOM	6569	N	LEU	B	388	79.604	18.465	46.227	1.00	32.69	N
ATOM	6570	CA	LEU	B	388	80.741	18.792	45.548	1.00	34.47	C
ATOM	6571	CB	LEU	B	388	81.438	19.987	46.305	1.00	42.95	C
ATOM	6572	CG	LEU	B	388	80.884	21.420	46.319	1.00	38.48	C
ATOM	6573	CD1	LEU	B	388	81.959	22.223	46.588	1.00	42.06	C
ATOM	6574	CD2	LEU	B	388	80.483	21.691	44.896	1.00	37.27	C
ATOM	6575	C	LEU	B	388	81.762	17.615	45.713	1.00	36.98	C
ATOM	6576	O	LEU	B	388	82.006	17.255	46.803	1.00	38.12	O
ATOM	6577	N	ILE	B	389	82.352	17.035	44.580	1.00	40.08	N
ATOM	6578	CA	ILE	B	389	83.240	15.900	44.397	1.00	31.70	C
ATOM	6579	CB	ILE	B	389	82.992	15.375	43.015	1.00	33.51	C
ATOM	6580	CG1	ILE	B	389	81.649	14.830	42.789	1.00	35.31	C
ATOM	6581	CD1	ILE	B	389	81.044	14.587	43.980	1.00	42.60	C
ATOM	6582	CG2	ILE	B	389	83.833	14.098	42.681	1.00	34.19	C
ATOM	6583	C	ILE	B	389	84.583	16.483	44.296	1.00	31.76	C
ATOM	6584	O	ILE	B	389	84.874	17.226	43.502	1.00	29.61	O
ATOM	6585	N	SER	B	390	85.492	16.054	45.090	1.00	31.18	N
ATOM	6586	CA	SER	B	390	86.793	16.576	45.123	1.00	28.24	C
ATOM	6587	CB	SER	B	390	87.243	16.569	46.532	1.00	22.46	C
ATOM	6588	OG	SER	B	390	88.654	16.916	46.529	1.00	29.51	O
ATOM	6589	C	SER	B	390	87.658	15.953	44.164	1.00	29.33	C
ATOM	6590	O	SER	B	390	88.416	15.067	44.473	1.00	31.88	O
ATOM	6591	N	LEU	B	391	87.670	16.391	42.892	1.00	31.90	N
ATOM	6592	CA	LEU	B	391	88.711	15.706	41.968	1.00	28.63	C
ATOM	6593	CB	LEU	B	391	88.568	16.128	40.629	1.00	24.88	C
ATOM	6594	CG	LEU	B	391	87.183	15.958	40.161	1.00	27.13	C
ATOM	6595	CD1	LEU	B	391	87.148	15.881	38.575	1.00	27.91	C
ATOM	6596	CD2	LEU	B	391	86.609	14.679	40.545	1.00	29.80	C
ATOM	6597	C	LEU	B	391	90.158	15.783	42.509	1.00	31.77	C
ATOM	6598	O	LEU	B	391	90.948	14.924	42.389	1.00	35.17	O
ATOM	6599	N	THR	B	392	90.559	16.834	43.143	1.00	34.62	N
ATOM	6600	CA	THR	B	392	92.010	16.876	43.590	1.00	32.39	C
ATOM	6601	CB	THR	B	392	92.261	18.032	44.582	1.00	26.20	C
ATOM	6602	OG1	THR	B	392	91.528	19.113	44.142	1.00	33.46	O
ATOM	6603	CG2	THR	B	392	93.606	18.498	44.485	1.00	30.85	C
ATOM	6604	C	THR	B	392	92.339	15.733	44.428	1.00	33.47	C
ATOM	6605	O	THR	B	392	93.459	15.275	44.485	1.00	33.16	O
ATOM	6606	N	SER	B	393	91.349	15.391	45.273	1.00	33.58	N
ATOM	6607	CA	SER	B	393	91.608	14.314	46.218	1.00	28.88	C
ATOM	6608	CB	SER	B	393	90.530	14.117	47.288	1.00	26.14	C
ATOM	6609	OG	SER	B	393	89.436	13.704	46.564	1.00	25.76	O

185/514

Figure 2

ATOM	6610	C	SER	B	393	91.823	13.060	45.456	1.00	31.32	C
ATOM	6611	O	SER	B	393	92.647	12.249	45.905	1.00	37.73	O
ATOM	6612	N	VAL	B	394	91.224	12.826	44.310	1.00	30.26	N
ATOM	6613	CA	VAL	B	394	91.551	11.659	43.598	1.00	29.91	C
ATOM	6614	CB	VAL	B	394	90.409	11.260	42.730	1.00	29.72	C
ATOM	6615	CG1	VAL	B	394	90.791	10.061	42.026	1.00	31.98	C
ATOM	6616	CG2	VAL	B	394	89.269	10.900	43.619	1.00	32.76	C
ATOM	6617	C	VAL	B	394	92.793	11.921	42.730	1.00	32.50	C
ATOM	6618	O	VAL	B	394	93.662	11.172	42.668	1.00	38.59	O
ATOM	6619	N	LEU	B	395	92.938	13.029	42.067	1.00	33.72	N
ATOM	6620	CA	LEU	B	395	94.076	13.250	41.074	1.00	30.87	C
ATOM	6621	CB	LEU	B	395	93.755	14.502	40.297	1.00	30.47	C
ATOM	6622	CG	LEU	B	395	93.206	14.437	38.900	1.00	33.48	C
ATOM	6623	CD1	LEU	B	395	92.212	13.679	38.745	1.00	34.48	C
ATOM	6624	CD2	LEU	B	395	92.678	15.788	38.302	1.00	30.63	C
ATOM	6625	C	LEU	B	395	95.349	13.350	41.733	1.00	28.87	C
ATOM	6626	O	LEU	B	395	96.466	13.272	41.172	1.00	27.36	O
ATOM	6627	N	HIS	B	396	95.248	13.592	43.000	1.00	30.52	N
ATOM	6628	CA	HIS	B	396	96.530	13.850	43.823	1.00	28.58	C
ATOM	6629	CB	HIS	B	396	96.629	15.181	44.365	1.00	28.09	C
ATOM	6630	CG	HIS	B	396	96.903	16.201	43.393	1.00	30.36	C
ATOM	6631	ND1	HIS	B	396	98.092	16.860	43.356	1.00	32.62	N
ATOM	6632	CE1	HIS	B	396	98.133	17.633	42.267	1.00	34.45	C
ATOM	6633	NE2	HIS	B	396	97.022	17.478	41.607	1.00	33.59	N
ATOM	6634	CD2	HIS	B	396	96.208	16.621	42.329	1.00	32.02	C
ATOM	6635	C	HIS	B	396	96.548	12.846	45.032	1.00	31.16	C
ATOM	6636	O	HIS	B	396	97.328	13.162	45.847	1.00	29.37	O
ATOM	6637	N	ASP	B	397	95.847	11.619	44.999	1.00	33.30	N
ATOM	6638	CA	ASP	B	397	96.045	10.548	45.989	1.00	34.68	C
ATOM	6639	CB	ASP	B	397	95.296	9.401	45.523	1.00	37.59	C
ATOM	6640	CG	ASP	B	397	95.119	8.394	46.580	1.00	36.73	C
ATOM	6641	OD1	ASP	B	397	96.203	7.644	46.747	1.00	44.98	O
ATOM	6642	OD2	ASP	B	397	94.015	8.387	47.197	1.00	35.24	O
ATOM	6643	C	ASP	B	397	97.458	10.231	46.280	1.00	35.24	C
ATOM	6644	O	ASP	B	397	98.131	10.109	45.347	1.00	39.37	O
ATOM	6645	N	ASN	B	398	97.982	10.314	47.469	1.00	36.79	N
ATOM	6646	CA	ASN	B	398	99.415	10.155	47.845	1.00	40.19	C
ATOM	6647	CB	ASN	B	398	99.625	10.033	49.451	1.00	44.84	C
ATOM	6648	CG	ASN	B	398	99.675	11.190	49.997	1.00	60.57	C
ATOM	6649	OD1	ASN	B	398	98.545	11.800	50.403	1.00	80.86	O
ATOM	6650	ND2	ASN	B	398	100.942	11.777	49.970	1.00	74.93	N
ATOM	6651	C	ASN	B	398	99.859	8.739	47.672	1.00	40.37	C
ATOM	6652	O	ASN	B	398	101.007	8.534	47.502	1.00	42.29	O
ATOM	6653	N	LYS	B	399	99.014	7.763	47.815	1.00	36.80	N
ATOM	6654	CA	LYS	B	399	99.547	6.432	47.682	1.00	42.91	C
ATOM	6655	CB	LYS	B	399	98.576	5.351	48.307	1.00	43.43	C
ATOM	6656	CG	LYS	B	399	98.357	5.617	49.720	1.00	49.69	C
ATOM	6657	CD	LYS	B	399	98.250	4.297	50.590	1.00	61.52	C
ATOM	6658	CE	LYS	B	399	97.358	3.145	49.758	1.00	67.54	C
ATOM	6659	NZ	LYS	B	399	98.199	2.318	48.510	1.00	66.85	N
ATOM	6660	C	LYS	B	399	99.632	6.109	46.192	1.00	42.55	C
ATOM	6661	O	LYS	B	399	100.658	5.802	45.769	1.00	42.20	O
ATOM	6662	N	GLU	B	400	98.502	6.217	45.461	1.00	41.37	N
ATOM	6663	CA	GLU	B	400	98.437	6.104	43.992	1.00	41.09	C
ATOM	6664	CB	GLU	B	400	97.016	6.344	43.472	1.00	42.29	C
ATOM	6665	CG	GLU	B	400	96.874	6.065	42.052	1.00	50.47	C
ATOM	6666	CD	GLU	B	400	96.895	4.643	41.720	1.00	49.79	C
ATOM	6667	OE1	GLU	B	400	96.816	4.295	40.527	1.00	51.29	O
ATOM	6668	OE2	GLU	B	400	96.960	3.906	42.639	1.00	49.26	O
ATOM	6669	C	GLU	B	400	99.378	6.960	43.233	1.00	41.23	C
ATOM	6670	O	GLU	B	400	99.669	6.577	42.168	1.00	44.35	O
ATOM	6671	N	PHE	B	401	99.915	8.074	43.755	1.00	39.78	N
ATOM	6672	CA	PHE	B	401	100.876	8.897	43.016	1.00	40.09	C
ATOM	6673	CB	PHE	B	401	100.211	10.072	42.209	1.00	33.08	C
ATOM	6674	CG	PHE	B	401	99.118	9.672	41.241	1.00	26.62	C
ATOM	6675	CD1	PHE	B	401	97.859	9.914	41.512	1.00	21.86	C
ATOM	6676	CE1	PHE	B	401	96.942	9.544	40.800	1.00	24.05	C
ATOM	6677	CZ	PHE	B	401	97.271	8.970	39.531	1.00	30.16	C
ATOM	6678	CE2	PHE	B	401	98.461	8.790	39.241	1.00	27.60	C
ATOM	6679	CD2	PHE	B	401	99.390	9.131	40.059	1.00	28.31	C
ATOM	6680	C	PHE	B	401	101.970	9.465	43.955	1.00	43.64	C
ATOM	6681	O	PHE	B	401	101.885	10.441	44.484	1.00	44.24	O
ATOM	6682	N	PRO	B	402	102.991	8.778	44.218	1.00	50.09	N
ATOM	6683	CA	PRO	B	402	103.962	9.270	45.209	1.00	51.87	C
ATOM	6684	CB	PRO	B	402	105.164	8.571	44.836	1.00	53.37	C
ATOM	6685	CG	PRO	B	402	104.511	7.108	44.636	1.00	49.69	C

Figure 2

ATOM	6686	CD	PRO	B	402	103.255	7.370	43.808	1.00	50.68	C
ATOM	6687	C	PRO	B	402	104.168	10.764	45.256	1.00	53.69	C
ATOM	6688	O	PRO	B	402	103.619	11.469	46.002	1.00	58.32	O
ATOM	6689	N	ASN	B	403	104.825	11.445	44.491	1.00	53.75	N
ATOM	6690	CA	ASN	B	403	104.780	12.838	44.975	1.00	51.59	C
ATOM	6691	CB	ASN	B	403	106.195	13.379	44.675	1.00	55.72	C
ATOM	6692	CG	ASN	B	403	107.283	12.503	45.435	1.00	60.15	C
ATOM	6693	OD1	ASN	B	403	106.873	11.688	46.181	1.00	61.24	O
ATOM	6694	ND2	ASN	B	403	108.584	12.625	45.176	1.00	63.74	N
ATOM	6695	C	ASN	B	403	103.773	13.565	44.200	1.00	48.18	C
ATOM	6696	O	ASN	B	403	104.101	14.214	43.328	1.00	46.93	O
ATOM	6697	N	PRO	B	404	102.622	13.632	44.590	1.00	45.01	N
ATOM	6698	CA	PRO	B	404	101.474	14.055	43.826	1.00	45.27	C
ATOM	6699	CB	PRO	B	404	100.284	13.845	44.759	1.00	42.20	C
ATOM	6700	CG	PRO	B	404	100.866	13.590	46.001	1.00	45.78	C
ATOM	6701	CD	PRO	B	404	102.404	13.793	45.952	1.00	47.38	C
ATOM	6702	C	PRO	B	404	101.640	15.517	43.441	1.00	46.83	C
ATOM	6703	O	PRO	B	404	101.067	15.951	42.437	1.00	46.59	O
ATOM	6704	N	GLU	B	405	102.437	16.272	44.149	1.00	48.64	N
ATOM	6705	CA	GLU	B	405	102.635	17.667	43.823	1.00	47.70	C
ATOM	6706	CB	GLU	B	405	103.017	18.468	45.014	1.00	48.85	C
ATOM	6707	CG	GLU	B	405	101.916	18.498	46.109	1.00	67.79	C
ATOM	6708	CD	GLU	B	405	100.484	18.961	45.685	1.00	73.11	C
ATOM	6709	OE1	GLU	B	405	100.225	20.145	45.885	1.00	76.32	O
ATOM	6710	OE2	GLU	B	405	99.642	18.146	45.154	1.00	77.72	O
ATOM	6711	C	GLU	B	405	103.660	17.820	42.910	1.00	45.07	C
ATOM	6712	O	GLU	B	405	103.930	18.921	42.591	1.00	49.01	O
ATOM	6713	N	MET	B	406	104.310	16.816	42.429	1.00	44.09	N
ATOM	6714	CA	MET	B	406	105.305	17.118	41.383	1.00	46.52	C
ATOM	6715	CB	MET	B	406	106.601	16.449	41.573	1.00	48.06	C
ATOM	6716	CG	MET	B	406	107.146	16.352	43.000	1.00	61.56	C
ATOM	6717	SD	MET	B	406	108.110	17.682	43.319	1.00	70.70	S
ATOM	6718	CE	MET	B	406	109.344	17.824	41.927	1.00	61.49	C
ATOM	6719	C	MET	B	406	104.828	16.659	39.932	1.00	43.76	C
ATOM	6720	O	MET	B	406	104.083	15.774	39.854	1.00	41.89	O
ATOM	6721	N	PHE	B	407	105.353	17.268	38.831	1.00	39.98	N
ATOM	6722	CA	PHE	B	407	105.034	16.864	37.455	1.00	34.78	C
ATOM	6723	CB	PHE	B	407	105.405	17.922	36.478	1.00	31.57	C
ATOM	6724	CG	PHE	B	407	105.271	17.553	35.141	1.00	28.29	C
ATOM	6725	CD1	PHE	B	407	104.002	17.300	34.584	1.00	29.06	C
ATOM	6726	CE1	PHE	B	407	103.820	17.000	33.363	1.00	25.14	C
ATOM	6727	CZ	PHE	B	407	104.841	16.871	32.540	1.00	27.81	C
ATOM	6728	CE2	PHE	B	407	106.000	17.105	32.902	1.00	33.13	C
ATOM	6729	CD2	PHE	B	407	106.249	17.491	34.363	1.00	33.62	C
ATOM	6730	C	PHE	B	407	105.955	15.715	37.209	1.00	38.84	C
ATOM	6731	O	PHE	B	407	107.223	15.924	37.088	1.00	36.95	O
ATOM	6732	N	ASP	B	408	105.378	14.466	37.139	1.00	39.31	N
ATOM	6733	CA	ASP	B	408	106.226	13.271	36.750	1.00	36.27	C
ATOM	6734	CB	ASP	B	408	106.532	12.523	37.957	1.00	40.63	C
ATOM	6735	CG	ASP	B	408	107.691	11.477	37.761	1.00	46.39	C
ATOM	6736	OD1	ASP	B	408	108.233	10.886	38.744	1.00	55.22	O
ATOM	6737	OD2	ASP	B	408	108.176	11.287	36.686	1.00	56.62	O
ATOM	6738	C	ASP	B	408	105.520	12.258	35.865	1.00	34.18	C
ATOM	6739	O	ASP	B	408	104.602	11.452	36.381	1.00	28.20	O
ATOM	6740	N	PRO	B	409	105.912	12.208	34.559	1.00	30.22	N
ATOM	6741	CA	PRO	B	409	105.209	11.346	33.647	1.00	31.17	C
ATOM	6742	CB	PRO	B	409	105.849	11.579	32.289	1.00	33.15	C
ATOM	6743	CG	PRO	B	409	106.812	12.804	32.480	1.00	30.60	C
ATOM	6744	CD	PRO	B	409	107.068	12.765	33.901	1.00	31.65	C
ATOM	6745	C	PRO	B	409	105.249	9.912	34.119	1.00	29.64	C
ATOM	6746	O	PRO	B	409	104.383	9.094	33.841	1.00	27.94	O
ATOM	6747	N	HIS	B	410	106.275	9.602	34.902	1.00	34.67	N
ATOM	6748	CA	HIS	B	410	106.346	8.156	35.447	1.00	35.77	C
ATOM	6749	CB	HIS	B	410	107.693	7.917	36.140	1.00	37.86	C
ATOM	6750	CG	HIS	B	410	108.826	7.760	35.167	1.00	45.35	C
ATOM	6751	ND1	HIS	B	410	109.038	6.573	34.461	1.00	47.51	N
ATOM	6752	CE1	HIS	B	410	109.921	6.812	33.491	1.00	51.71	C
ATOM	6753	NE2	HIS	B	410	110.366	8.083	33.573	1.00	50.99	N
ATOM	6754	CD2	HIS	B	410	109.657	8.695	34.613	1.00	53.28	C
ATOM	6755	C	HIS	B	410	105.203	7.684	36.165	1.00	35.77	C
ATOM	6756	O	HIS	B	410	105.087	6.575	36.355	1.00	39.86	O
ATOM	6757	N	HIS	B	411	104.275	8.578	36.599	1.00	38.70	N
ATOM	6758	CA	HIS	B	411	103.065	8.249	37.327	1.00	36.24	C
ATOM	6759	CB	HIS	B	411	102.324	9.463	37.832	1.00	38.17	C
ATOM	6760	CG	HIS	B	411	102.981	10.250	38.952	1.00	40.99	C
ATOM	6761	ND1	HIS	B	411	102.879	9.877	40.254	1.00	42.02	N

Figure 2

ATOM	6762	CE1	HIS	B	411	103.480	10.811	41.044	1.00	56.70	C
ATOM	6763	NE2	HIS	B	411	103.970	11.792	40.270	1.00	43.90	N
ATOM	6764	CD2	HIS	B	411	103.650	11.470	38.957	1.00	48.69	C
ATOM	6765	C	HIS	B	411	102.185	7.535	36.501	1.00	35.36	C
ATOM	6766	O	HIS	B	411	101.075	7.117	36.920	1.00	39.83	O
ATOM	6767	N	PHE	B	412	102.534	7.460	35.250	1.00	36.40	N
ATOM	6768	CA	PHE	B	412	101.695	6.733	34.240	1.00	36.11	C
ATOM	6769	CB	PHE	B	412	100.909	7.744	33.405	1.00	33.66	C
ATOM	6770	CG	PHE	B	412	99.753	8.383	34.165	1.00	30.34	C
ATOM	6771	CD1	PHE	B	412	99.950	9.510	34.863	1.00	30.86	C
ATOM	6772	CE1	PHE	B	412	99.025	10.119	35.602	1.00	29.10	C
ATOM	6773	CZ	PHE	B	412	97.779	9.690	35.582	1.00	28.96	C
ATOM	6774	CE2	PHE	B	412	97.552	8.530	34.882	1.00	32.21	C
ATOM	6775	CD2	PHE	B	412	98.526	7.869	34.149	1.00	25.56	C
ATOM	6776	C	PHE	B	412	102.546	5.759	33.370	1.00	36.07	C
ATOM	6777	O	PHE	B	412	102.157	5.403	32.260	1.00	34.20	O
ATOM	6778	N	LEU	B	413	103.726	5.453	33.894	1.00	35.50	N
ATOM	6779	CA	LEU	B	413	104.666	4.531	33.367	1.00	37.37	C
ATOM	6780	CB	LEU	B	413	105.873	5.309	32.976	1.00	34.64	C
ATOM	6781	CG	LEU	B	413	105.673	6.059	31.713	1.00	28.87	C
ATOM	6782	CD1	LEU	B	413	106.986	6.598	31.470	1.00	28.20	C
ATOM	6783	CD2	LEU	B	413	105.244	5.428	30.576	1.00	23.76	C
ATOM	6784	C	LEU	B	413	105.034	3.305	34.364	1.00	40.34	C
ATOM	6785	O	LEU	B	413	105.470	3.495	35.591	1.00	41.19	O
ATOM	6786	N	ASP	B	414	104.998	2.083	33.835	1.00	41.01	N
ATOM	6787	CA	ASP	B	414	105.426	0.918	34.640	1.00	41.92	C
ATOM	6788	CB	ASP	B	414	104.679	-0.282	34.282	1.00	39.64	C
ATOM	6789	CG	ASP	B	414	105.009	-0.693	32.905	1.00	42.82	C
ATOM	6790	OD1	ASP	B	414	104.293	-1.484	32.219	1.00	43.97	O
ATOM	6791	OD2	ASP	B	414	106.049	-0.289	32.300	1.00	49.99	O
ATOM	6792	C	ASP	B	414	106.849	0.697	34.470	1.00	45.18	C
ATOM	6793	O	ASP	B	414	107.411	1.597	33.899	1.00	43.93	O
ATOM	6794	N	GLU	B	415	107.409	-0.372	35.041	1.00	51.47	N
ATOM	6795	CA	GLU	B	415	108.859	-0.685	35.018	1.00	55.17	C
ATOM	6796	CB	GLU	B	415	108.867	-2.124	35.440	1.00	59.92	C
ATOM	6797	CG	GLU	B	415	108.199	-3.101	34.376	1.00	68.48	C
ATOM	6798	CD	GLU	B	415	107.360	-4.316	34.971	1.00	82.63	C
ATOM	6799	OE1	GLU	B	415	108.027	-5.331	35.594	1.00	88.87	O
ATOM	6800	OE2	GLU	B	415	106.043	-4.265	34.818	1.00	84.54	O
ATOM	6801	C	GLU	B	415	109.518	-0.523	33.639	1.00	53.74	C
ATOM	6802	O	GLU	B	415	110.540	0.237	33.486	1.00	52.09	O
ATOM	6803	N	GLY	B	416	108.930	-1.087	32.561	1.00	54.20	N
ATOM	6804	CA	GLY	B	416	109.419	-0.776	31.174	1.00	56.22	C
ATOM	6805	C	GLY	B	416	108.761	0.626	30.804	1.00	57.54	C
ATOM	6806	O	GLY	B	416	108.281	1.359	31.732	1.00	62.21	O
ATOM	6807	N	GLY	B	417	108.715	1.089	29.610	1.00	53.94	N
ATOM	6808	CA	GLY	B	417	107.903	2.255	29.215	1.00	52.04	C
ATOM	6809	C	GLY	B	417	106.584	1.862	29.596	1.00	51.85	C
ATOM	6810	O	GLY	B	417	106.469	1.511	30.654	1.00	58.46	O
ATOM	6811	N	ASN	B	418	105.651	1.636	28.852	1.00	48.17	N
ATOM	6812	CA	ASN	B	418	104.389	1.150	29.251	1.00	44.77	C
ATOM	6813	CB	ASN	B	418	104.301	-0.257	29.595	1.00	47.30	C
ATOM	6814	CG	ASN	B	418	105.275	-1.126	28.899	1.00	56.75	C
ATOM	6815	OD1	ASN	B	418	106.375	-1.386	29.491	1.00	74.73	O
ATOM	6816	ND2	ASN	B	418	105.081	-1.422	27.613	1.00	56.19	N
ATOM	6817	C	ASN	B	418	103.466	1.964	30.013	1.00	42.15	C
ATOM	6818	O	ASN	B	418	103.581	2.277	31.086	1.00	35.71	O
ATOM	6819	N	PHE	B	419	102.508	2.321	29.170	1.00	42.42	N
ATOM	6820	CA	PHE	B	419	101.466	3.221	29.671	1.00	39.36	C
ATOM	6821	CB	PHE	B	419	100.428	3.613	28.700	1.00	35.65	C
ATOM	6822	CG	PHE	B	419	99.470	4.516	29.318	1.00	41.44	C
ATOM	6823	CD1	PHE	B	419	99.888	5.824	29.615	1.00	39.18	C
ATOM	6824	CE1	PHE	B	419	99.098	6.595	30.230	1.00	37.38	C
ATOM	6825	CZ	PHE	B	419	97.879	6.205	30.533	1.00	38.17	C
ATOM	6826	CE2	PHE	B	419	97.453	4.857	30.278	1.00	34.21	C
ATOM	6827	CD2	PHE	B	419	98.215	4.121	29.649	1.00	35.16	C
ATOM	6828	C	PHE	B	419	100.936	2.471	30.813	1.00	38.54	C
ATOM	6829	O	PHE	B	419	100.442	1.369	30.664	1.00	45.48	O
ATOM	6830	N	LYS	B	420	100.953	3.049	31.966	1.00	36.66	N
ATOM	6831	CA	LYS	B	420	100.311	2.497	33.226	1.00	31.92	C
ATOM	6832	CB	LYS	B	420	101.358	2.443	34.324	1.00	32.77	C
ATOM	6833	CG	LYS	B	420	100.848	1.871	35.592	1.00	32.90	C
ATOM	6834	CD	LYS	B	420	101.800	2.020	36.836	1.00	37.40	C
ATOM	6835	CE	LYS	B	420	102.955	3.005	36.431	1.00	42.69	C
ATOM	6836	NZ	LYS	B	420	103.527	3.167	38.058	1.00	47.34	N
ATOM	6837	C	LYS	B	420	99.080	3.252	33.711	1.00	30.31	C

188/514

Figure 2

ATOM	6838	O	LYS	B	420	99.183	4.150	34.370	1.00	29.60	O
ATOM	6839	N	LYS	B	421	97.889	2.840	33.327	1.00	30.41	N
ATOM	6840	CA	LYS	B	421	96.627	3.320	33.602	1.00	28.44	C
ATOM	6841	CB	LYS	B	421	95.519	2.532	32.851	1.00	27.09	C
ATOM	6842	CG	LYS	B	421	94.830	1.399	33.307	1.00	33.55	C
ATOM	6843	CD	LYS	B	421	93.913	0.705	32.402	1.00	34.06	C
ATOM	6844	CE	LYS	B	421	93.641	-0.745	32.969	1.00	36.44	C
ATOM	6845	NZ	LYS	B	421	92.963	-1.371	31.856	1.00	39.97	N
ATOM	6846	C	LYS	B	421	96.281	3.529	35.002	1.00	32.17	C
ATOM	6847	O	LYS	B	421	96.989	3.315	35.766	1.00	33.99	O
ATOM	6848	N	SER	B	422	95.148	4.179	35.387	1.00	34.37	N
ATOM	6849	CA	SER	B	422	94.940	4.379	36.763	1.00	29.57	C
ATOM	6850	CB	SER	B	422	95.818	5.369	37.299	1.00	28.09	C
ATOM	6851	OG	SER	B	422	95.325	5.671	38.654	1.00	33.50	O
ATOM	6852	C	SER	B	422	93.544	4.790	36.978	1.00	31.17	C
ATOM	6853	O	SER	B	422	92.970	5.412	36.206	1.00	31.84	O
ATOM	6854	N	LYS	B	423	92.900	4.302	37.958	1.00	33.68	N
ATOM	6855	CA	LYS	B	423	91.528	4.512	38.008	1.00	35.90	C
ATOM	6856	CB	LYS	B	423	90.764	3.429	38.839	1.00	36.31	C
ATOM	6857	CG	LYS	B	423	91.613	2.796	39.907	1.00	42.21	C
ATOM	6858	CD	LYS	B	423	90.589	2.085	40.852	1.00	51.50	C
ATOM	6859	CE	LYS	B	423	91.175	1.461	42.183	1.00	52.65	C
ATOM	6860	NZ	LYS	B	423	90.159	0.534	43.041	1.00	48.17	N
ATOM	6861	C	LYS	B	423	91.450	5.814	38.684	1.00	37.16	C
ATOM	6862	O	LYS	B	423	90.376	6.395	38.738	1.00	35.09	O
ATOM	6863	N	TYR	B	424	92.624	6.214	39.202	1.00	38.84	N
ATOM	6864	CA	TYR	B	424	92.637	7.435	40.004	1.00	40.58	C
ATOM	6865	CB	TYR	B	424	93.877	7.449	40.934	1.00	39.92	C
ATOM	6866	CG	TYR	B	424	93.616	6.723	42.177	1.00	44.08	C
ATOM	6867	CD1	TYR	B	424	93.328	7.364	43.344	1.00	53.83	C
ATOM	6868	CE1	TYR	B	424	93.073	6.719	44.452	1.00	52.80	C
ATOM	6869	CZ	TYR	B	424	93.111	5.352	44.383	1.00	53.57	C
ATOM	6870	OH	TYR	B	424	92.875	4.459	45.488	1.00	47.67	O
ATOM	6871	CE2	TYR	B	424	93.434	4.780	43.240	1.00	44.95	C
ATOM	6872	CD2	TYR	B	424	93.689	5.433	42.204	1.00	45.46	C
ATOM	6873	C	TYR	B	424	92.666	8.734	38.970	1.00	37.95	C
ATOM	6874	O	TYR	B	424	92.877	9.900	39.387	1.00	36.76	O
ATOM	6875	N	PHE	B	425	92.511	8.464	37.709	1.00	33.63	N
ATOM	6876	CA	PHE	B	425	92.683	9.539	36.670	1.00	30.18	C
ATOM	6877	CB	PHE	B	425	93.383	8.961	35.536	1.00	22.18	C
ATOM	6878	CG	PHE	B	425	93.597	9.863	34.397	1.00	28.30	C
ATOM	6879	CD1	PHE	B	425	94.526	10.898	34.429	1.00	31.09	C
ATOM	6880	CE1	PHE	B	425	94.637	11.829	33.334	1.00	22.15	C
ATOM	6881	CZ	PHE	B	425	93.866	11.640	32.286	1.00	26.38	C
ATOM	6882	CE2	PHE	B	425	92.948	10.644	32.265	1.00	23.45	C
ATOM	6883	CD2	PHE	B	425	92.823	9.784	33.328	1.00	24.01	C
ATOM	6884	C	PHE	B	425	91.319	10.063	36.316	1.00	31.63	C
ATOM	6885	O	PHE	B	425	90.769	9.494	35.478	1.00	32.47	O
ATOM	6886	N	MET	B	426	90.776	11.045	37.048	1.00	30.84	N
ATOM	6887	CA	MET	B	426	89.536	11.561	36.775	1.00	32.55	C
ATOM	6888	CB	MET	B	426	88.607	11.345	37.970	1.00	32.66	C
ATOM	6889	CG	MET	B	426	88.715	10.078	38.447	1.00	38.37	C
ATOM	6890	SD	MET	B	426	87.825	10.001	39.967	1.00	44.70	S
ATOM	6891	CE	MET	B	426	86.364	9.818	39.453	1.00	39.89	C
ATOM	6892	C	MET	B	426	89.470	13.106	36.447	1.00	29.46	C
ATOM	6893	O	MET	B	426	88.548	13.752	36.848	1.00	29.27	O
ATOM	6894	N	PRO	B	427	90.296	13.623	35.638	1.00	24.22	N
ATOM	6895	CA	PRO	B	427	90.196	14.965	35.326	1.00	22.16	C
ATOM	6896	CB	PRO	B	427	91.256	15.165	34.379	1.00	22.29	C
ATOM	6897	CG	PRO	B	427	91.796	13.916	34.148	1.00	27.76	C
ATOM	6898	CD	PRO	B	427	91.039	12.876	34.637	1.00	25.83	C
ATOM	6899	C	PRO	B	427	88.926	15.315	34.658	1.00	23.55	C
ATOM	6900	O	PRO	B	427	88.530	16.309	34.792	1.00	25.77	O
ATOM	6901	N	PHE	B	428	88.271	14.414	33.986	1.00	25.30	N
ATOM	6902	CA	PHE	B	428	87.080	14.632	33.314	1.00	22.19	C
ATOM	6903	CB	PHE	B	428	87.007	13.672	32.098	1.00	23.09	C
ATOM	6904	CG	PHE	B	428	88.091	13.897	30.995	1.00	15.47	C
ATOM	6905	CD1	PHE	B	428	89.208	13.349	31.057	1.00	12.74	C
ATOM	6906	CE1	PHE	B	428	90.246	13.661	30.118	1.00	19.27	C
ATOM	6907	CZ	PHE	B	428	90.027	14.577	29.175	1.00	17.53	C
ATOM	6908	CE2	PHE	B	428	88.875	15.124	29.111	1.00	22.03	C
ATOM	6909	CD2	PHE	B	428	87.896	14.825	30.013	1.00	21.75	C
ATOM	6910	C	PHE	B	428	85.973	14.205	34.092	1.00	26.39	C
ATOM	6911	O	PHE	B	428	84.880	13.936	33.614	1.00	25.03	O
ATOM	6912	N	SER	B	429	86.229	14.057	35.347	1.00	29.07	N
ATOM	6913	CA	SER	B	429	85.286	13.387	36.280	1.00	26.94	C

Figure 2

ATOM	6914	CB	SER	B	429	83.969	14.117	36.234	1.00	29.84	C
ATOM	6915	OG	SER	B	429	83.133	13.442	37.346	1.00	27.58	O
ATOM	6916	C	SER	B	429	84.977	11.901	35.996	1.00	29.15	C
ATOM	6917	O	SER	B	429	85.628	11.403	35.151	1.00	41.74	O
ATOM	6918	N	ALA	B	430	83.960	11.256	36.617	1.00	28.44	N
ATOM	6919	CA	ALA	B	430	83.496	9.886	36.540	1.00	26.95	C
ATOM	6920	CB	ALA	B	430	83.935	9.169	37.576	1.00	27.07	C
ATOM	6921	C	ALA	B	430	82.069	9.650	36.631	1.00	29.47	C
ATOM	6922	O	ALA	B	430	81.384	10.482	37.244	1.00	36.54	O
ATOM	6923	N	GLY	B	431	81.457	8.602	36.016	1.00	28.85	N
ATOM	6924	CA	GLY	B	431	80.049	8.429	36.200	1.00	27.19	C
ATOM	6925	C	GLY	B	431	79.062	8.882	35.215	1.00	27.77	C
ATOM	6926	O	GLY	B	431	79.451	9.162	34.127	1.00	26.77	O
ATOM	6927	N	LYS	B	432	77.745	8.996	35.600	1.00	26.91	N
ATOM	6928	CA	LYS	B	432	76.824	9.441	34.673	1.00	29.30	C
ATOM	6929	CB	LYS	B	432	75.469	9.339	35.293	1.00	34.93	C
ATOM	6930	CG	LYS	B	432	74.909	7.832	35.299	1.00	40.51	C
ATOM	6931	CD	LYS	B	432	73.543	7.643	34.740	1.00	50.31	C
ATOM	6932	CE	LYS	B	432	72.757	6.365	35.559	1.00	52.14	C
ATOM	6933	NZ	LYS	B	432	73.691	5.190	35.659	1.00	50.69	N
ATOM	6934	C	LYS	B	432	76.931	10.751	34.068	1.00	30.27	C
ATOM	6935	O	LYS	B	432	76.295	11.029	33.024	1.00	33.81	O
ATOM	6936	N	ARG	B	433	77.693	11.631	34.686	1.00	31.03	N
ATOM	6937	CA	ARG	B	433	77.936	12.929	34.219	1.00	29.98	C
ATOM	6938	CB	ARG	B	433	77.680	13.939	35.319	1.00	31.85	C
ATOM	6939	CG	ARG	B	433	76.155	14.196	35.578	1.00	24.49	C
ATOM	6940	CD	ARG	B	433	75.702	15.281	34.843	1.00	33.27	C
ATOM	6941	NE	ARG	B	433	74.337	15.663	35.238	1.00	32.36	N
ATOM	6942	CZ	ARG	B	433	73.679	16.683	34.707	1.00	34.94	C
ATOM	6943	NH1	ARG	B	433	74.142	17.554	33.848	1.00	28.40	N
ATOM	6944	NH2	ARG	B	433	72.485	16.878	35.093	1.00	44.73	N
ATOM	6945	C	ARG	B	433	79.252	13.076	33.739	1.00	30.19	C
ATOM	6946	O	ARG	B	433	79.725	14.151	33.611	1.00	36.79	O
ATOM	6947	N	ILE	B	434	79.944	12.062	33.462	1.00	28.85	N
ATOM	6948	CA	ILE	B	434	81.353	12.280	33.101	1.00	27.52	C
ATOM	6949	CB	ILE	B	434	81.974	10.984	32.857	1.00	30.24	C
ATOM	6950	CG1	ILE	B	434	83.351	11.142	32.315	1.00	38.21	C
ATOM	6951	CD1	ILE	B	434	84.135	9.920	32.328	1.00	34.47	C
ATOM	6952	CG2	ILE	B	434	81.274	10.240	31.720	1.00	24.38	C
ATOM	6953	C	ILE	B	434	81.426	13.133	31.865	1.00	27.40	C
ATOM	6954	O	ILE	B	434	80.469	13.214	31.046	1.00	26.67	O
ATOM	6955	N	CYS	B	435	82.474	13.900	31.755	1.00	25.66	N
ATOM	6956	CA	CYS	B	435	82.664	14.810	30.604	1.00	27.17	C
ATOM	6957	CB	CYS	B	435	84.130	15.291	30.612	1.00	31.33	C
ATOM	6958	SG	CYS	B	435	84.245	16.517	29.083	1.00	41.60	S
ATOM	6959	C	CYS	B	435	82.317	14.299	29.218	1.00	28.22	C
ATOM	6960	O	CYS	B	435	82.950	13.382	28.682	1.00	33.09	O
ATOM	6961	N	VAL	B	436	81.231	14.745	28.628	1.00	28.79	N
ATOM	6962	CA	VAL	B	436	80.809	14.384	27.321	1.00	25.91	C
ATOM	6963	CB	VAL	B	436	79.687	15.357	26.957	1.00	28.73	C
ATOM	6964	CG1	VAL	B	436	79.371	15.187	25.576	1.00	31.02	C
ATOM	6965	CG2	VAL	B	436	78.427	15.081	27.746	1.00	32.21	C
ATOM	6966	C	VAL	B	436	81.794	14.669	26.356	1.00	26.73	C
ATOM	6967	O	VAL	B	436	81.579	14.345	25.196	1.00	33.96	O
ATOM	6968	N	GLY	B	437	82.930	15.235	26.671	1.00	26.67	N
ATOM	6969	CA	GLY	B	437	83.917	15.498	25.662	1.00	26.44	C
ATOM	6970	C	GLY	B	437	85.258	14.859	25.865	1.00	28.22	C
ATOM	6971	O	GLY	B	437	86.400	15.290	25.277	1.00	28.34	O
ATOM	6972	N	GLU	B	438	85.204	13.791	26.662	1.00	25.63	N
ATOM	6973	CA	GLU	B	438	86.479	13.075	26.950	1.00	27.24	C
ATOM	6974	CB	GLU	B	438	86.029	11.870	27.707	1.00	29.26	C
ATOM	6975	CG	GLU	B	438	86.949	11.321	28.633	1.00	35.54	C
ATOM	6976	CD	GLU	B	438	86.493	10.051	29.279	1.00	40.71	C
ATOM	6977	OE1	GLU	B	438	87.501	9.578	29.993	1.00	47.35	O
ATOM	6978	OE2	GLU	B	438	85.267	9.588	29.107	1.00	36.00	O
ATOM	6979	C	GLU	B	438	87.312	12.716	25.824	1.00	24.96	C
ATOM	6980	O	GLU	B	438	88.472	12.948	25.670	1.00	27.60	O
ATOM	6981	N	ALA	B	439	86.644	12.103	24.957	1.00	27.69	N
ATOM	6982	CA	ALA	B	439	87.135	11.604	23.727	1.00	24.66	C
ATOM	6983	CB	ALA	B	439	86.100	10.780	23.025	1.00	23.83	C
ATOM	6984	C	ALA	B	439	87.642	12.683	23.019	1.00	25.98	C
ATOM	6985	O	ALA	B	439	88.833	12.770	22.755	1.00	36.19	O
ATOM	6986	N	LEU	B	440	86.886	13.609	22.661	1.00	28.51	N
ATOM	6987	CA	LEU	B	440	87.389	14.856	21.805	1.00	23.66	C
ATOM	6988	CB	LEU	B	440	86.329	15.968	21.727	1.00	24.55	C
ATOM	6989	CG	LEU	B	440	86.579	17.082	20.861	1.00	28.15	C

Figure 2

ATOM	6990	CD1	LEU	B	440	87.275	16.614	19.579	1.00	23.82	C
ATOM	6991	CD2	LEU	B	440	85.371	17.873	20.436	1.00	24.40	C
ATOM	6992	C	LEU	B	440	88.373	15.489	22.495	1.00	22.96	C
ATOM	6993	O	LEU	B	440	89.469	15.837	21.915	1.00	27.20	O
ATOM	6994	N	ALA	B	441	88.256	15.684	23.752	1.00	20.63	N
ATOM	6995	CA	ALA	B	441	89.388	16.380	24.318	1.00	18.95	C
ATOM	6996	CB	ALA	B	441	89.127	16.497	25.683	1.00	24.72	C
ATOM	6997	C	ALA	B	441	90.576	15.715	24.159	1.00	24.09	C
ATOM	6998	O	ALA	B	441	91.680	16.330	23.880	1.00	24.53	O
ATOM	6999	N	GLY	B	442	90.530	14.356	24.389	1.00	25.15	N
ATOM	7000	CA	GLY	B	442	91.840	13.724	24.323	1.00	24.07	C
ATOM	7001	C	GLY	B	442	92.346	13.659	23.072	1.00	23.36	C
ATOM	7002	O	GLY	B	442	93.531	13.658	22.813	1.00	33.09	O
ATOM	7003	N	MET	B	443	91.515	13.569	22.146	1.00	25.01	N
ATOM	7004	CA	MET	B	443	92.075	13.614	20.747	1.00	23.34	C
ATOM	7005	CB	MET	B	443	90.895	13.358	19.882	1.00	23.68	C
ATOM	7006	CG	MET	B	443	91.226	13.437	18.406	1.00	35.58	C
ATOM	7007	SD	MET	B	443	89.714	12.721	17.583	1.00	40.79	S
ATOM	7008	CE	MET	B	443	88.404	12.470	18.612	1.00	38.97	C
ATOM	7009	C	MET	B	443	92.712	14.942	20.459	1.00	24.56	C
ATOM	7010	O	MET	B	443	93.602	15.009	19.824	1.00	30.04	O
ATOM	7011	N	GLU	B	444	92.172	16.092	20.822	1.00	26.67	N
ATOM	7012	CA	GLU	B	444	92.865	17.399	20.685	1.00	23.98	C
ATOM	7013	CB	GLU	B	444	91.938	18.578	21.192	1.00	28.79	C
ATOM	7014	CG	GLU	B	444	90.643	18.748	20.387	1.00	29.52	C
ATOM	7015	CD	GLU	B	444	89.841	19.823	20.815	1.00	35.83	C
ATOM	7016	OE1	GLU	B	444	90.190	20.949	20.606	1.00	44.44	O
ATOM	7017	OE2	GLU	B	444	88.799	19.601	21.318	1.00	43.62	O
ATOM	7018	C	GLU	B	444	94.034	17.409	21.478	1.00	23.54	C
ATOM	7019	O	GLU	B	444	95.071	17.799	20.869	1.00	27.67	O
ATOM	7020	N	LEU	B	445	94.067	17.090	22.784	1.00	21.05	N
ATOM	7021	CA	LEU	B	445	95.455	17.121	23.417	1.00	20.50	C
ATOM	7022	CB	LEU	B	445	95.562	16.668	24.833	1.00	21.64	C
ATOM	7023	CG	LEU	B	445	94.405	17.242	25.658	1.00	18.59	C
ATOM	7024	CD1	LEU	B	445	94.377	16.643	27.110	1.00	19.46	C
ATOM	7025	CD2	LEU	B	445	94.709	18.740	25.722	1.00	18.07	C
ATOM	7026	C	LEU	B	445	96.477	16.337	22.759	1.00	25.06	C
ATOM	7027	O	LEU	B	445	97.802	16.857	22.544	1.00	28.56	O
ATOM	7028	N	PHE	B	446	96.166	15.081	22.367	1.00	26.29	N
ATOM	7029	CA	PHE	B	446	97.332	14.258	21.778	1.00	22.94	C
ATOM	7030	CB	PHE	B	446	96.972	12.775	21.766	1.00	25.42	C
ATOM	7031	CG	PHE	B	446	97.986	11.898	21.132	1.00	25.31	C
ATOM	7032	CD1	PHE	B	446	97.898	11.561	19.816	1.00	33.20	C
ATOM	7033	CE1	PHE	B	446	98.739	10.846	19.189	1.00	24.98	C
ATOM	7034	C2	PHE	B	446	99.787	10.350	19.875	1.00	29.55	C
ATOM	7035	CE2	PHE	B	446	99.892	10.581	21.121	1.00	29.31	C
ATOM	7036	CD2	PHE	B	446	98.962	11.410	21.801	1.00	24.85	C
ATOM	7037	C	PHE	B	446	97.716	14.815	20.471	1.00	21.61	C
ATOM	7038	O	PHE	B	446	98.957	14.995	20.291	1.00	19.17	O
ATOM	7039	N	LEU	B	447	96.765	15.079	19.561	1.00	20.94	N
ATOM	7040	CA	LEU	B	447	97.132	15.510	18.200	1.00	22.17	C
ATOM	7041	CB	LEU	B	447	95.978	15.466	17.272	1.00	20.89	C
ATOM	7042	CG	LEU	B	447	95.273	14.072	17.201	1.00	25.93	C
ATOM	7043	CD1	LEU	B	447	94.025	14.111	16.420	1.00	26.04	C
ATOM	7044	CD2	LEU	B	447	96.059	13.148	16.433	1.00	24.34	C
ATOM	7045	C	LEU	B	447	97.624	16.937	18.151	1.00	24.11	C
ATOM	7046	O	LEU	B	447	98.533	17.313	17.350	1.00	23.92	O
ATOM	7047	N	PHE	B	448	97.099	17.747	18.995	1.00	25.59	N
ATOM	7048	CA	PHE	B	448	97.679	19.152	18.905	1.00	29.00	C
ATOM	7049	CB	PHE	B	448	96.878	20.236	19.651	1.00	28.89	C
ATOM	7050	CG	PHE	B	448	95.551	20.589	19.039	1.00	25.38	C
ATOM	7051	CD1	PHE	B	448	95.345	20.414	17.860	1.00	27.14	C
ATOM	7052	CE1	PHE	B	448	94.087	20.842	17.325	1.00	32.03	C
ATOM	7053	C2	PHE	B	448	93.194	21.304	18.014	1.00	26.80	C
ATOM	7054	CE2	PHE	B	448	93.485	21.474	19.329	1.00	26.96	C
ATOM	7055	CD2	PHE	B	448	94.626	21.153	19.752	1.00	24.07	C
ATOM	7056	C	PHE	B	448	99.092	19.076	19.551	1.00	26.82	C
ATOM	7057	O	PHE	B	448	99.904	19.734	19.093	1.00	32.50	O
ATOM	7058	N	LEU	B	449	99.319	18.413	20.620	1.00	25.07	N
ATOM	7059	CA	LEU	B	449	100.654	18.495	21.164	1.00	27.99	C
ATOM	7060	CB	LEU	B	449	100.632	18.004	22.602	1.00	27.37	C
ATOM	7061	CG	LEU	B	449	99.841	18.811	23.451	1.00	32.91	C
ATOM	7062	CD1	LEU	B	449	99.689	18.249	24.816	1.00	37.42	C
ATOM	7063	CD2	LEU	B	449	100.885	20.008	23.777	1.00	36.35	C
ATOM	7064	C	LEU	B	449	101.622	17.716	20.313	1.00	28.76	C
ATOM	7065	O	LEU	B	449	102.708	18.077	20.058	1.00	31.52	O

191/514

Figure 2

ATOM	7066	N	THR	B	450	101.248	16.545	19.775	1.00	33.44	N
ATOM	7067	CA	THR	B	450	102.293	15.882	19.031	1.00	30.45	C
ATOM	7068	CB	THR	B	450	102.014	14.423	18.814	1.00	30.30	C
ATOM	7069	OG1	THR	B	450	100.792	14.355	18.179	1.00	32.92	O
ATOM	7070	CG2	THR	B	450	101.878	13.634	20.031	1.00	30.22	C
ATOM	7071	C	THR	B	450	102.522	16.675	17.818	1.00	26.00	C
ATOM	7072	O	THR	B	450	103.496	16.713	17.269	1.00	29.47	O
ATOM	7073	N	SER	B	451	101.626	17.371	17.337	1.00	29.65	N
ATOM	7074	CA	SER	B	451	101.979	18.182	16.066	1.00	30.50	C
ATOM	7075	CB	SER	B	451	100.766	18.646	15.349	1.00	31.78	C
ATOM	7076	OG	SER	B	451	99.928	17.565	15.049	1.00	31.33	O
ATOM	7077	C	SER	B	451	102.820	19.375	16.378	1.00	32.11	C
ATOM	7078	O	SER	B	451	103.625	19.782	15.555	1.00	35.75	O
ATOM	7079	N	ILE	B	452	102.572	20.033	17.487	1.00	32.08	N
ATOM	7080	CA	ILE	B	452	103.483	21.107	17.869	1.00	32.63	C
ATOM	7081	CB	ILE	B	452	103.051	21.752	19.130	1.00	30.39	C
ATOM	7082	CG1	ILE	B	452	101.681	22.487	18.820	1.00	31.68	C
ATOM	7083	CD1	ILE	B	452	101.070	23.045	20.028	1.00	32.00	C
ATOM	7084	CG2	ILE	B	452	103.976	22.554	19.525	1.00	28.69	C
ATOM	7085	C	ILE	B	452	104.853	20.592	17.979	1.00	32.45	C
ATOM	7086	O	ILE	B	452	105.743	21.077	17.411	1.00	35.00	O
ATOM	7087	N	LEU	B	453	105.051	19.558	18.669	1.00	33.90	N
ATOM	7088	CA	LEU	B	453	106.469	19.243	18.934	1.00	33.72	C
ATOM	7089	CB	LEU	B	453	106.453	18.384	20.204	1.00	34.32	C
ATOM	7090	CG	LEU	B	453	106.026	18.927	21.496	1.00	29.63	C
ATOM	7091	CD1	LEU	B	453	106.354	18.027	22.562	1.00	30.81	C
ATOM	7092	CD2	LEU	B	453	106.870	20.008	21.730	1.00	35.15	C
ATOM	7093	C	LEU	B	453	107.112	18.499	17.845	1.00	35.36	C
ATOM	7094	O	LEU	B	453	108.218	18.180	17.853	1.00	34.96	O
ATOM	7095	N	GLN	B	454	106.325	18.083	16.884	1.00	41.41	N
ATOM	7096	CA	GLN	B	454	106.851	17.406	15.626	1.00	40.37	C
ATOM	7097	CB	GLN	B	454	105.712	16.770	14.815	1.00	39.37	C
ATOM	7098	CG	GLN	B	454	106.056	16.446	13.393	1.00	34.96	C
ATOM	7099	CD	GLN	B	454	104.889	15.687	12.652	1.00	36.72	C
ATOM	7100	OE1	GLN	B	454	105.050	14.462	12.220	1.00	33.59	O
ATOM	7101	NE2	GLN	B	454	103.735	16.415	12.448	1.00	33.06	N
ATOM	7102	C	GLN	B	454	107.403	18.441	14.724	1.00	40.33	C
ATOM	7103	O	GLN	B	454	108.352	18.123	13.969	1.00	40.52	O
ATOM	7104	N	ASN	B	455	106.883	19.697	14.876	1.00	41.38	N
ATOM	7105	CA	ASN	B	455	107.323	20.827	13.993	1.00	42.96	C
ATOM	7106	CB	ASN	B	455	106.107	21.438	13.277	1.00	43.11	C
ATOM	7107	CG	ASN	B	455	105.324	20.440	12.293	1.00	41.25	C
ATOM	7108	OD1	ASN	B	455	105.702	20.162	11.149	1.00	40.52	O
ATOM	7109	ND2	ASN	B	455	104.225	19.969	12.757	1.00	41.20	N
ATOM	7110	C	ASN	B	455	108.200	22.001	14.651	1.00	43.02	C
ATOM	7111	O	ASN	B	455	108.920	22.756	13.967	1.00	41.71	O
ATOM	7112	N	PHE	B	456	108.179	22.113	15.965	1.00	42.79	N
ATOM	7113	CA	PHE	B	456	108.922	23.161	16.640	1.00	39.98	C
ATOM	7114	CB	PHE	B	456	107.988	24.209	17.129	1.00	41.75	C
ATOM	7115	CG	PHE	B	456	107.030	24.750	16.010	1.00	40.69	C
ATOM	7116	CD1	PHE	B	456	107.478	25.562	15.061	1.00	35.56	C
ATOM	7117	CE1	PHE	B	456	106.636	25.918	14.065	1.00	38.20	C
ATOM	7118	CZ	PHE	B	456	105.307	25.527	14.049	1.00	39.04	C
ATOM	7119	CE2	PHE	B	456	104.891	24.774	14.991	1.00	44.28	C
ATOM	7120	CD2	PHE	B	456	105.771	24.358	15.978	1.00	42.19	C
ATOM	7121	C	PHE	B	456	109.576	22.599	17.890	1.00	42.09	C
ATOM	7122	O	PHE	B	456	109.203	21.576	18.434	1.00	36.96	O
ATOM	7123	N	ASN	B	457	110.665	23.292	18.338	1.00	44.14	N
ATOM	7124	CA	ASN	B	457	111.312	22.978	19.594	1.00	41.61	C
ATOM	7125	CB	ASN	B	457	112.638	22.970	19.509	1.00	39.46	C
ATOM	7126	CG	ASN	B	457	113.140	21.903	18.767	1.00	45.53	C
ATOM	7127	OD1	ASN	B	457	112.814	20.728	19.024	1.00	56.78	O
ATOM	7128	ND2	ASN	B	457	114.074	22.214	17.829	1.00	46.17	N
ATOM	7129	C	ASN	B	457	110.787	24.129	20.559	1.00	41.81	C
ATOM	7130	O	ASN	B	457	110.314	25.104	20.089	1.00	43.45	O
ATOM	7131	N	LEU	B	458	110.758	23.979	21.802	1.00	40.33	N
ATOM	7132	CA	LEU	B	458	110.187	25.036	22.450	1.00	44.19	C
ATOM	7133	CB	LEU	B	458	109.183	24.479	23.493	1.00	44.07	C
ATOM	7134	CG	LEU	B	458	108.103	23.722	22.858	1.00	42.17	C
ATOM	7135	CD1	LEU	B	458	107.324	23.218	23.996	1.00	38.93	C
ATOM	7136	CD2	LEU	B	458	107.202	24.576	22.020	1.00	43.71	C
ATOM	7137	C	LEU	B	458	111.334	25.860	23.220	1.00	48.19	C
ATOM	7138	O	LEU	B	458	112.143	25.310	23.980	1.00	54.13	O
ATOM	7139	N	LYS	B	459	111.443	27.117	23.056	1.00	49.18	N
ATOM	7140	CA	LYS	B	459	112.457	27.741	23.779	1.00	52.47	C
ATOM	7141	CB	LYS	B	459	113.437	28.362	22.874	1.00	56.53	C

Figure 2

ATOM	7142	CG	LYS	B	459	114.290	29.529	23.474	1.00	60.08	C
ATOM	7143	CD	LYS	B	459	115.652	29.559	22.726	1.00	67.03	C
ATOM	7144	CE	LYS	B	459	116.583	30.801	23.164	1.00	72.39	C
ATOM	7145	NZ	LYS	B	459	116.603	32.150	22.229	1.00	73.65	N
ATOM	7146	C	LYS	B	459	111.911	28.858	24.535	1.00	53.35	C
ATOM	7147	O	LYS	B	459	111.260	29.755	24.141	1.00	55.10	O
ATOM	7148	N	SER	B	460	112.261	28.805	25.754	1.00	56.12	N
ATOM	7149	CA	SER	B	460	111.843	29.775	26.717	1.00	55.66	C
ATOM	7150	CB	SER	B	460	112.016	29.201	28.119	1.00	56.75	C
ATOM	7151	OG	SER	B	460	111.384	29.994	29.199	1.00	71.26	O
ATOM	7152	C	SER	B	460	112.666	31.029	26.646	1.00	51.87	C
ATOM	7153	O	SER	B	460	113.728	31.076	25.985	1.00	54.51	O
ATOM	7154	N	LEU	B	461	112.122	32.068	27.280	1.00	41.34	N
ATOM	7155	CA	LEU	B	461	112.641	33.544	27.139	1.00	40.97	C
ATOM	7156	CB	LEU	B	461	111.362	34.501	27.185	1.00	33.50	C
ATOM	7157	CG	LEU	B	461	110.755	34.731	25.845	1.00	42.34	C
ATOM	7158	CD1	LEU	B	461	111.046	33.555	24.793	1.00	44.32	C
ATOM	7159	CD2	LEU	B	461	109.109	34.782	26.212	1.00	45.70	C
ATOM	7160	C	LEU	B	461	113.444	33.739	28.547	1.00	38.79	C
ATOM	7161	O	LEU	B	461	114.648	33.525	28.531	1.00	55.41	O
ATOM	7162	N	VAL	B	462	112.712	34.059	29.606	1.00	36.37	N
ATOM	7163	CA	VAL	B	462	113.173	34.143	31.138	1.00	43.95	C
ATOM	7164	CB	VAL	B	462	111.757	34.624	31.923	1.00	40.79	C
ATOM	7165	CG1	VAL	B	462	110.604	33.545	31.897	1.00	42.50	C
ATOM	7166	CG2	VAL	B	462	111.940	35.230	33.299	1.00	47.45	C
ATOM	7167	C	VAL	B	462	113.534	32.603	31.439	1.00	47.30	C
ATOM	7168	O	VAL	B	462	112.617	31.839	31.855	1.00	54.90	O
ATOM	7169	N	ASP	B	463	114.705	32.110	30.887	1.00	55.09	N
ATOM	7170	CA	ASP	B	463	115.416	30.789	31.256	1.00	54.17	C
ATOM	7171	CB	ASP	B	463	116.537	31.359	32.093	1.00	60.06	C
ATOM	7172	CG	ASP	B	463	116.254	31.522	33.476	1.00	67.65	C
ATOM	7173	OD1	ASP	B	463	116.871	30.690	34.188	1.00	88.29	O
ATOM	7174	OD2	ASP	B	463	115.599	32.450	33.956	1.00	81.80	O
ATOM	7175	C	ASP	B	463	114.713	29.638	32.046	1.00	51.69	C
ATOM	7176	O	ASP	B	463	114.327	29.920	33.176	1.00	55.23	O
ATOM	7177	N	PRO	B	464	114.594	28.241	31.758	1.00	45.18	N
ATOM	7178	CA	PRO	B	464	113.638	27.271	32.512	1.00	40.29	C
ATOM	7179	CB	PRO	B	464	114.050	25.872	32.036	1.00	40.94	C
ATOM	7180	CG	PRO	B	464	115.587	26.015	31.654	1.00	42.70	C
ATOM	7181	CD	PRO	B	464	115.453	27.439	30.794	1.00	43.91	C
ATOM	7182	C	PRO	B	464	113.432	27.331	33.857	1.00	40.06	C
ATOM	7183	O	PRO	B	464	112.360	27.430	34.625	1.00	54.04	O
ATOM	7184	N	LYS	B	465	114.375	26.780	34.592	1.00	45.46	N
ATOM	7185	CA	LYS	B	465	114.494	26.599	36.377	1.00	42.50	C
ATOM	7186	CB	LYS	B	465	115.881	26.231	36.535	1.00	36.69	C
ATOM	7187	CG	LYS	B	465	115.932	25.805	38.347	1.00	39.52	C
ATOM	7188	CD	LYS	B	465	117.580	25.432	37.907	1.00	35.29	C
ATOM	7189	CE	LYS	B	465	118.252	24.895	39.773	1.00	43.37	C
ATOM	7190	NZ	LYS	B	465	119.852	24.451	39.417	1.00	55.57	N
ATOM	7191	C	LYS	B	465	113.893	28.055	36.847	1.00	51.69	C
ATOM	7192	O	LYS	B	465	113.075	28.115	38.001	1.00	57.43	O
ATOM	7193	N	ASN	B	466	114.119	29.157	36.049	1.00	59.49	N
ATOM	7194	CA	ASN	B	466	113.342	30.217	36.702	1.00	65.46	C
ATOM	7195	CB	ASN	B	466	113.828	31.667	36.731	1.00	67.54	C
ATOM	7196	CG	ASN	B	466	115.215	31.787	37.630	1.00	76.20	C
ATOM	7197	OD1	ASN	B	466	115.245	32.163	38.931	1.00	79.38	O
ATOM	7198	ND2	ASN	B	466	116.328	31.466	36.955	1.00	78.21	N
ATOM	7199	C	ASN	B	466	111.894	29.984	36.819	1.00	67.02	C
ATOM	7200	O	ASN	B	466	111.466	29.910	38.017	1.00	70.63	O
ATOM	7201	N	LEU	B	467	111.164	29.890	35.661	1.00	65.39	N
ATOM	7202	CA	LEU	B	467	109.701	29.910	35.621	1.00	62.09	C
ATOM	7203	CB	LEU	B	467	109.173	29.436	34.268	1.00	63.25	C
ATOM	7204	CG	LEU	B	467	110.237	28.954	33.360	1.00	65.55	C
ATOM	7205	CD1	LEU	B	467	110.064	27.611	32.715	1.00	72.01	C
ATOM	7206	CD2	LEU	B	467	110.269	29.985	32.176	1.00	67.21	C
ATOM	7207	C	LEU	B	467	109.140	29.012	36.597	1.00	62.05	C
ATOM	7208	O	LEU	B	467	109.727	28.004	36.849	1.00	58.56	O
ATOM	7209	N	ASP	B	468	107.980	29.380	37.122	1.00	63.62	N
ATOM	7210	CA	ASP	B	468	107.220	28.666	38.104	1.00	65.00	C
ATOM	7211	CB	ASP	B	468	106.827	29.679	39.097	1.00	67.15	C
ATOM	7212	CG	ASP	B	468	105.727	29.159	40.050	1.00	74.66	C
ATOM	7213	OD1	ASP	B	468	104.537	29.632	39.900	1.00	81.34	O
ATOM	7214	OD2	ASP	B	468	105.998	28.299	40.968	1.00	73.89	O
ATOM	7215	C	ASP	B	468	105.909	28.125	37.597	1.00	61.63	C
ATOM	7216	O	ASP	B	468	105.316	28.792	36.928	1.00	60.62	O
ATOM	7217	N	THR	B	469	105.529	26.924	37.975	1.00	58.43	N

193/514

Figure 2

ATOM	7218	CA	THR	B	469	104.479	26.284	37.417	1.00	58.62	C
ATOM	7219	CB	THR	B	469	104.858	24.988	36.854	1.00	56.81	C
ATOM	7220	OG1	THR	B	469	104.908	23.987	37.888	1.00	53.21	O
ATOM	7221	CG2	THR	B	469	106.108	25.111	36.156	1.00	56.20	C
ATOM	7222	C	THR	B	469	103.404	26.047	38.419	1.00	62.89	C
ATOM	7223	O	THR	B	469	102.507	25.150	38.279	1.00	63.22	O
ATOM	7224	N	THR	B	470	103.400	26.971	39.338	1.00	63.69	N
ATOM	7225	CA	THR	B	470	102.443	27.008	40.403	1.00	64.59	C
ATOM	7226	CB	THR	B	470	103.105	28.078	41.478	1.00	67.46	C
ATOM	7227	OG1	THR	B	470	104.026	27.322	42.296	1.00	77.24	O
ATOM	7228	CG2	THR	B	470	102.047	28.898	42.472	1.00	70.18	C
ATOM	7229	C	THR	B	470	101.097	27.497	39.868	1.00	60.59	C
ATOM	7230	O	THR	B	470	100.987	28.716	39.425	1.00	59.30	O
ATOM	7231	N	PRO	B	471	100.167	26.572	39.868	1.00	56.77	N
ATOM	7232	CA	PRO	B	471	98.806	26.833	39.487	1.00	59.34	C
ATOM	7233	CB	PRO	B	471	98.081	25.454	39.807	1.00	60.48	C
ATOM	7234	CG	PRO	B	471	99.177	24.419	39.648	1.00	56.01	C
ATOM	7235	CD	PRO	B	471	100.343	25.168	40.165	1.00	56.87	C
ATOM	7236	C	PRO	B	471	98.183	27.955	40.261	1.00	59.51	C
ATOM	7237	O	PRO	B	471	98.266	27.949	41.421	1.00	60.80	O
ATOM	7238	N	VAL	B	472	97.635	28.936	39.624	1.00	60.05	N
ATOM	7239	CA	VAL	B	472	96.973	29.977	40.342	1.00	62.36	C
ATOM	7240	CB	VAL	B	472	97.007	31.263	39.539	1.00	62.01	C
ATOM	7241	CG1	VAL	B	472	96.002	32.275	40.108	1.00	65.35	C
ATOM	7242	CG2	VAL	B	472	98.418	31.856	39.411	1.00	62.30	C
ATOM	7243	C	VAL	B	472	95.494	29.542	40.472	1.00	66.46	C
ATOM	7244	O	VAL	B	472	94.755	29.293	39.432	1.00	65.77	O
ATOM	7245	N	VAL	B	473	95.032	29.375	41.693	1.00	70.49	N
ATOM	7246	CA	VAL	B	473	93.629	28.964	41.825	1.00	74.58	C
ATOM	7247	CB	VAL	B	473	93.511	27.903	42.972	1.00	75.13	C
ATOM	7248	CG1	VAL	B	473	92.022	27.512	43.187	1.00	77.51	C
ATOM	7249	CG2	VAL	B	473	94.299	26.625	42.594	1.00	71.49	C
ATOM	7250	C	VAL	B	473	92.564	30.060	42.067	1.00	76.99	C
ATOM	7251	O	VAL	B	473	92.791	31.054	42.738	1.00	79.23	O
ATOM	7252	N	ASN	B	474	91.364	29.869	41.540	1.00	80.22	N
ATOM	7253	CA	ASN	B	474	90.223	30.840	41.831	1.00	82.26	C
ATOM	7254	CB	ASN	B	474	90.019	31.782	40.677	1.00	83.61	C
ATOM	7255	CG	ASN	B	474	91.075	32.882	40.766	1.00	90.17	C
ATOM	7256	OD1	ASN	B	474	92.333	32.577	40.817	1.00	88.37	O
ATOM	7257	ND2	ASN	B	474	90.608	34.107	41.056	1.00	92.94	N
ATOM	7258	C	ASN	B	474	88.984	30.102	42.060	1.00	80.56	C
ATOM	7259	O	ASN	B	474	88.218	29.755	41.099	1.00	78.86	O
ATOM	7260	N	GLY	B	475	88.831	29.828	43.337	1.00	79.38	N
ATOM	7261	CA	GLY	B	475	87.692	29.029	43.840	1.00	79.59	C
ATOM	7262	C	GLY	B	475	87.581	27.618	43.277	1.00	78.62	C
ATOM	7263	O	GLY	B	475	88.139	26.643	43.801	1.00	80.35	O
ATOM	7264	N	PHE	B	476	86.858	27.542	42.160	1.00	76.76	N
ATOM	7265	CA	PHE	B	476	86.490	26.299	41.461	1.00	72.07	C
ATOM	7266	CB	PHE	B	476	84.938	26.410	41.224	1.00	71.27	C
ATOM	7267	CG	PHE	B	476	84.116	26.219	42.512	1.00	76.85	C
ATOM	7268	CD1	PHE	B	476	82.753	26.662	42.577	1.00	83.78	C
ATOM	7269	CE1	PHE	B	476	81.958	26.471	43.759	1.00	82.52	C
ATOM	7270	CZ	PHE	B	476	82.524	25.870	44.833	1.00	84.61	C
ATOM	7271	CE2	PHE	B	476	83.892	25.412	44.802	1.00	82.37	C
ATOM	7272	CD2	PHE	B	476	84.669	25.583	43.649	1.00	78.05	C
ATOM	7273	C	PHE	B	476	87.213	26.191	40.098	1.00	67.50	C
ATOM	7274	O	PHE	B	476	86.727	25.526	39.159	1.00	66.12	O
ATOM	7275	N	ALA	B	477	88.289	26.895	39.902	1.00	62.45	N
ATOM	7276	CA	ALA	B	477	88.989	26.737	38.625	1.00	58.61	C
ATOM	7277	CB	ALA	B	477	88.389	27.523	37.557	1.00	58.45	C
ATOM	7278	C	ALA	B	477	90.445	27.122	38.959	1.00	57.54	C
ATOM	7279	O	ALA	B	477	90.687	27.556	40.251	1.00	60.40	O
ATOM	7280	N	SER	B	478	91.388	26.945	37.993	1.00	51.07	N
ATOM	7281	CA	SER	B	478	92.765	27.208	38.263	1.00	49.39	C
ATOM	7282	CB	SER	B	478	93.498	26.105	38.912	1.00	51.39	C
ATOM	7283	OG	SER	B	478	92.884	24.793	38.891	1.00	59.92	O
ATOM	7284	C	SER	B	478	93.347	27.353	36.907	1.00	47.30	C
ATOM	7285	O	SER	B	478	92.774	26.788	36.012	1.00	43.86	O
ATOM	7286	N	VAL	B	479	94.462	28.159	36.764	1.00	41.87	N
ATOM	7287	CA	VAL	B	479	94.953	28.376	35.437	1.00	37.51	C
ATOM	7288	CB	VAL	B	479	94.400	29.665	34.928	1.00	35.61	C
ATOM	7289	CG1	VAL	B	479	92.991	29.638	34.837	1.00	31.70	C
ATOM	7290	CG2	VAL	B	479	94.790	30.696	35.779	1.00	32.95	C
ATOM	7291	C	VAL	B	479	96.453	28.560	35.541	1.00	36.87	C
ATOM	7292	O	VAL	B	479	96.937	28.695	36.625	1.00	39.18	O
ATOM	7293	N	PRO	B	480	97.241	28.502	34.514	1.00	33.28	N

Figure 2

ATOM	7294	CA	PRO	B	480	98.655	28.561	34.849	1.00	35.24	C
ATOM	7295	CB	PRO	B	480	99.295	27.842	33.687	1.00	33.65	C
ATOM	7296	CG	PRO	B	480	98.378	28.453	32.546	1.00	33.30	C
ATOM	7297	CD	PRO	B	480	96.976	28.361	33.110	1.00	30.69	C
ATOM	7298	C	PRO	B	480	99.125	30.015	34.815	1.00	37.10	C
ATOM	7299	O	PRO	B	480	98.523	30.779	34.235	1.00	40.40	O
ATOM	7300	N	PRO	B	481	100.258	30.372	35.271	1.00	37.82	N
ATOM	7301	CA	PRO	B	481	100.653	31.760	35.195	1.00	37.07	C
ATOM	7302	CB	PRO	B	481	102.047	31.778	36.042	1.00	35.59	C
ATOM	7303	CG	PRO	B	481	102.598	30.457	35.749	1.00	40.62	C
ATOM	7304	CD	PRO	B	481	101.339	29.525	35.910	1.00	40.83	C
ATOM	7305	C	PRO	B	481	100.951	32.208	33.824	1.00	38.10	C
ATOM	7306	O	PRO	B	481	100.833	31.366	33.038	1.00	43.83	O
ATOM	7307	N	PHE	B	482	101.376	33.495	33.522	1.00	37.79	N
ATOM	7308	CA	PHE	B	482	101.636	34.106	32.306	1.00	33.05	C
ATOM	7309	CB	PHE	B	482	101.697	35.641	32.429	1.00	34.44	C
ATOM	7310	CG	PHE	B	482	102.135	36.275	31.245	1.00	30.63	C
ATOM	7311	CD1	PHE	B	482	103.322	36.763	31.202	1.00	30.65	C
ATOM	7312	CE1	PHE	B	482	103.804	37.288	30.075	1.00	33.91	C
ATOM	7313	CZ	PHE	B	482	103.010	37.348	28.928	1.00	33.37	C
ATOM	7314	CE2	PHE	B	482	101.760	36.871	28.981	1.00	32.52	C
ATOM	7315	CD2	PHE	B	482	101.317	36.310	30.170	1.00	30.97	C
ATOM	7316	C	PHE	B	482	102.971	33.579	31.919	1.00	34.43	C
ATOM	7317	O	PHE	B	482	103.750	33.363	32.803	1.00	42.59	O
ATOM	7318	N	TYR	B	483	103.313	33.382	30.687	1.00	30.67	N
ATOM	7319	CA	TYR	B	483	104.691	32.978	30.362	1.00	32.20	C
ATOM	7320	CB	TYR	B	483	104.991	31.622	30.646	1.00	29.81	C
ATOM	7321	CG	TYR	B	483	104.306	30.663	29.787	1.00	35.01	C
ATOM	7322	CD1	TYR	B	483	104.881	30.245	28.624	1.00	33.51	C
ATOM	7323	CE1	TYR	B	483	104.253	29.323	27.844	1.00	31.40	C
ATOM	7324	CZ	TYR	B	483	103.045	28.878	28.219	1.00	31.41	C
ATOM	7325	OH	TYR	B	483	102.364	27.959	27.423	1.00	29.48	O
ATOM	7326	CE2	TYR	B	483	102.501	29.314	29.383	1.00	27.40	C
ATOM	7327	CD2	TYR	B	483	103.079	30.149	30.136	1.00	26.37	C
ATOM	7328	C	TYR	B	483	104.689	33.203	28.790	1.00	34.50	C
ATOM	7329	O	TYR	B	483	103.605	33.300	28.389	1.00	39.63	O
ATOM	7330	N	GLN	B	484	105.850	33.204	28.160	1.00	32.70	N
ATOM	7331	CA	GLN	B	484	105.995	33.295	26.825	1.00	36.87	C
ATOM	7332	CB	GLN	B	484	106.491	34.567	26.352	1.00	35.75	C
ATOM	7333	CG	GLN	B	484	105.840	35.702	26.920	1.00	45.68	C
ATOM	7334	CD	GLN	B	484	106.659	37.161	26.651	1.00	47.85	C
ATOM	7335	OE1	GLN	B	484	107.654	37.430	27.425	1.00	48.69	O
ATOM	7336	NE2	GLN	B	484	106.163	38.010	25.731	1.00	37.55	N
ATOM	7337	C	GLN	B	484	106.963	32.354	26.272	1.00	35.69	C
ATOM	7338	O	GLN	B	484	107.560	31.767	27.010	1.00	39.85	O
ATOM	7339	N	LEU	B	485	107.059	32.170	24.968	1.00	37.86	N
ATOM	7340	CA	LEU	B	485	108.069	31.324	24.319	1.00	39.10	C
ATOM	7341	CB	LEU	B	485	107.629	29.916	24.556	1.00	39.09	C
ATOM	7342	CG	LEU	B	485	106.560	29.253	23.700	1.00	35.94	C
ATOM	7343	CD1	LEU	B	485	106.711	27.678	23.792	1.00	36.95	C
ATOM	7344	CD2	LEU	B	485	105.204	29.710	24.294	1.00	37.22	C
ATOM	7345	C	LEU	B	485	108.074	31.463	22.841	1.00	41.49	C
ATOM	7346	O	LEU	B	485	107.100	32.000	22.192	1.00	43.40	O
ATOM	7347	N	CYS	B	486	109.052	30.755	22.304	1.00	42.42	N
ATOM	7348	CA	CYS	B	486	109.291	30.690	20.820	1.00	42.95	C
ATOM	7349	CB	CYS	B	486	110.786	31.085	20.488	1.00	45.02	C
ATOM	7350	SG	CYS	B	486	111.441	32.584	21.437	1.00	50.03	S
ATOM	7351	C	CYS	B	486	109.209	29.338	20.141	1.00	42.37	C
ATOM	7352	O	CYS	B	486	109.724	28.341	20.592	1.00	38.64	O
ATOM	7353	N	PHE	B	487	108.553	29.327	19.010	1.00	41.45	N
ATOM	7354	CA	PHE	B	487	108.282	28.122	18.420	1.00	36.26	C
ATOM	7355	CB	PHE	B	487	106.821	28.137	17.990	1.00	35.30	C
ATOM	7356	CG	PHE	B	487	105.770	28.010	19.160	1.00	31.46	C
ATOM	7357	CD1	PHE	B	487	105.160	28.999	19.644	1.00	33.10	C
ATOM	7358	CE1	PHE	B	487	104.206	28.880	20.549	1.00	37.04	C
ATOM	7359	CZ	PHE	B	487	103.864	27.617	21.041	1.00	34.28	C
ATOM	7360	CE2	PHE	B	487	104.475	26.600	20.571	1.00	31.85	C
ATOM	7361	CD2	PHE	B	487	105.366	26.778	19.655	1.00	34.83	C
ATOM	7362	C	PHE	B	487	109.283	28.051	17.334	1.00	36.38	C
ATOM	7363	O	PHE	B	487	109.146	28.471	16.256	1.00	38.30	O
ATOM	7364	N	ILE	B	488	110.345	27.456	17.647	1.00	38.53	N
ATOM	7365	CA	ILE	B	488	111.412	27.309	16.701	1.00	40.03	C
ATOM	7366	CB	ILE	B	488	112.697	27.076	17.372	1.00	43.03	C
ATOM	7367	CG	ILE	B	488	113.291	28.462	17.800	1.00	43.72	C
ATOM	7368	CD1	ILE	B	488	112.647	28.865	19.087	1.00	50.29	C
ATOM	7369	CG2	ILE	B	488	113.637	26.549	16.488	1.00	45.79	C

195/514

Figure 2

ATOM	7370	C	ILE	B	488	111.326	26.110	15.884	1.00	43.37	C
ATOM	7371	O	ILE	B	488	111.432	24.981	16.337	1.00	46.17	O
ATOM	7372	N	PRO	B	489	111.233	26.279	14.621	1.00	44.02	N
ATOM	7373	CA	PRO	B	489	111.130	25.193	13.688	1.00	43.17	C
ATOM	7374	CB	PRO	B	489	111.214	25.925	12.399	1.00	41.71	C
ATOM	7375	CG	PRO	B	489	110.533	27.100	12.675	1.00	42.80	C
ATOM	7376	CD	PRO	B	489	111.268	27.599	14.008	1.00	45.22	C
ATOM	7377	C	PRO	B	489	112.211	24.138	13.731	1.00	44.73	C
ATOM	7378	O	PRO	B	489	113.313	24.341	14.107	1.00	46.44	O
ATOM	7379	N	VAL	B	490	111.920	22.931	13.398	1.00	46.77	N
ATOM	7380	CA	VAL	B	490	112.963	21.978	13.565	1.00	48.65	C
ATOM	7381	CB	VAL	B	490	112.374	20.653	13.938	1.00	50.54	C
ATOM	7382	CG1	VAL	B	490	111.207	20.818	15.065	1.00	51.72	C
ATOM	7383	CG2	VAL	B	490	111.806	19.907	12.699	1.00	47.68	C
ATOM	7384	C	VAL	B	490	113.845	21.872	12.241	1.00	52.92	C
ATOM	7385	O	VAL	B	490	113.263	22.159	11.102	1.00	54.96	O
ATOM	7386	OXT	VAL	B	490	115.135	21.560	12.212	1.00	51.49	O
TER	7386		VAL	B	490						
ATOM	7387	O43	HEM	A	501	7.021	65.487	22.850	1.00	38.37	O
ATOM	7388	C41	HEM	A	501	7.571	64.743	22.031	1.00	28.60	C
ATOM	7389	O42	HEM	A	501	7.331	63.623	21.871	1.00	34.90	O
ATOM	7390	C40	HEM	A	501	8.540	65.363	21.309	1.00	27.31	C
ATOM	7391	C39	HEM	A	501	8.331	66.834	21.054	1.00	21.20	C
ATOM	7392	C20	HEM	A	501	9.449	67.477	20.222	1.00	14.91	C
ATOM	7393	C21	HEM	A	501	10.762	68.058	20.703	1.00	26.75	C
ATOM	7394	C22	HEM	A	501	11.122	67.981	22.132	1.00	20.68	C
ATOM	7395	C6	HEM	A	501	12.262	68.476	22.662	1.00	21.15	C
ATOM	7396	N2	HEM	A	501	13.288	69.085	21.775	1.00	24.82	N
ATOM	7397	C19	HEM	A	501	9.461	67.861	18.921	1.00	19.46	C
ATOM	7398	C38	HEM	A	501	8.234	67.371	17.966	1.00	21.04	C
ATOM	7399	C18	HEM	A	501	10.790	68.527	18.657	1.00	17.07	C
ATOM	7400	N5	HEM	A	501	11.700	68.639	19.711	1.00	19.50	N
ATOM	7401	C25	HEM	A	501	11.335	69.073	17.348	1.00	25.22	C
ATOM	7402	C17	HEM	A	501	12.551	69.723	16.976	1.00	18.24	C
ATOM	7403	C16	HEM	A	501	12.930	70.092	15.737	1.00	21.74	C
ATOM	7404	C36	HEM	A	501	12.289	69.718	14.407	1.00	30.26	C
ATOM	7405	C37	HEM	A	501	11.457	68.458	14.262	1.00	26.66	C
ATOM	7406	C15	HEM	A	501	14.098	70.661	15.884	1.00	19.30	C
ATOM	7407	C35	HEM	A	501	14.944	71.413	14.876	1.00	18.29	C
ATOM	7408	C14	HEM	A	501	14.477	70.670	17.255	1.00	16.45	C
ATOM	7409	N4	HEM	A	501	13.523	70.087	18.023	1.00	20.55	N
ATOM	7410	C24	HEM	A	501	15.727	71.253	17.787	1.00	9.93	C
ATOM	7411	C13	HEM	A	501	16.012	71.141	19.216	1.00	20.25	C
ATOM	7412	C12	HEM	A	501	17.231	71.662	19.782	1.00	8.37	C
ATOM	7413	C33	HEM	A	501	18.115	72.263	18.966	1.00	14.53	C
ATOM	7414	C34	HEM	A	501	19.298	72.807	19.460	1.00	18.68	C
ATOM	7415	C11	HEM	A	501	17.187	71.330	21.083	1.00	12.11	C
ATOM	7416	C32	HEM	A	501	18.250	71.556	22.005	1.00	15.03	C
ATOM	7417	C10	HEM	A	501	15.883	70.570	21.399	1.00	13.11	C
ATOM	7418	N3	HEM	A	501	15.032	70.344	20.258	1.00	21.29	N
ATOM	7419	C23	HEM	A	501	15.421	70.037	22.657	1.00	14.19	C
ATOM	7420	C9	HEM	A	501	14.241	69.390	22.914	1.00	17.28	C
ATOM	7421	C8	HEM	A	501	13.785	68.909	24.174	1.00	16.99	C
ATOM	7422	C26	HEM	A	501	14.551	69.021	25.435	1.00	19.96	C
ATOM	7423	C7	HEM	A	501	12.585	68.314	24.066	1.00	18.72	C
ATOM	7424	C27	HEM	A	501	11.873	67.322	24.840	1.00	19.29	C
ATOM	7425	C28	HEM	A	501	11.693	67.368	26.245	1.00	30.60	C
ATOM	7426	C29	HEM	A	501	11.148	66.023	26.797	1.00	28.80	C
ATOM	7427	O30	HEM	A	501	9.979	65.733	26.518	1.00	36.08	O
ATOM	7428	O31	HEM	A	501	11.950	65.369	27.307	1.00	29.71	O
ATOM	7429	FE1	HEM	A	501	13.437	69.343	20.071	1.00	5.04	Fe
ATOM	7430	O43	HEM	B	501	76.717	17.712	32.633	1.00	34.81	O
ATOM	7431	C41	HEM	B	501	76.912	16.877	31.712	1.00	35.51	C
ATOM	7432	O42	HEM	B	501	76.210	15.909	31.320	1.00	32.88	O
ATOM	7433	C40	HEM	B	501	78.179	17.191	30.925	1.00	34.73	C
ATOM	7434	C39	HEM	B	501	78.476	18.584	30.751	1.00	24.25	C
ATOM	7435	C20	HEM	B	501	79.845	18.719	30.126	1.00	12.66	C
ATOM	7436	C21	HEM	B	501	81.153	18.665	30.690	1.00	8.81	C
ATOM	7437	C22	HEM	B	501	81.393	18.415	32.038	1.00	11.65	C
ATOM	7438	C6	HEM	B	501	82.637	18.377	32.583	1.00	9.10	C
ATOM	7439	N2	HEM	B	501	83.762	18.482	31.678	1.00	10.69	N
ATOM	7440	C19	HEM	B	501	80.044	19.019	28.762	1.00	15.28	C
ATOM	7441	C38	HEM	B	501	79.091	19.080	27.705	1.00	25.78	C
ATOM	7442	C18	HEM	B	501	81.506	18.988	28.473	1.00	15.03	C
ATOM	7443	N5	HEM	B	501	82.370	18.737	29.688	1.00	11.49	N
ATOM	7444	C25	HEM	B	501	82.024	19.138	27.172	1.00	7.84	C

Figure 2

ATOM	7445	C17	HEM	B	501	83.296	19.223	26.834	1.00	13.08	C
ATOM	7446	C16	HEM	B	501	83.837	19.406	25.488	1.00	13.85	C
ATOM	7447	C36	HEM	B	501	83.150	19.320	24.173	1.00	16.44	C
ATOM	7448	C37	HEM	B	501	81.825	18.879	23.932	1.00	23.32	C
ATOM	7449	C15	HEM	B	501	85.162	19.403	25.676	1.00	6.18	C
ATOM	7450	C35	HEM	B	501	86.134	19.625	24.738	1.00	13.70	C
ATOM	7451	C14	HEM	B	501	85.451	19.348	27.040	1.00	12.21	C
ATOM	7452	N4	HEM	B	501	84.325	19.152	27.904	1.00	12.91	N
ATOM	7453	C24	HEM	B	501	86.774	19.266	27.635	1.00	14.25	C
ATOM	7454	C13	HEM	B	501	86.953	19.078	29.044	1.00	13.31	C
ATOM	7455	C12	HEM	B	501	88.306	19.045	29.587	1.00	13.61	C
ATOM	7456	C33	HEM	B	501	89.574	19.292	28.860	1.00	17.48	C
ATOM	7457	C34	HEM	B	501	90.957	19.021	29.103	1.00	22.77	C
ATOM	7458	C11	HEM	B	501	88.195	18.784	30.893	1.00	18.50	C
ATOM	7459	C32	HEM	B	501	89.329	18.557	31.942	1.00	16.86	C
ATOM	7460	C10	HEM	B	501	86.685	18.673	31.070	1.00	16.97	C
ATOM	7461	N3	HEM	B	501	85.845	18.924	29.965	1.00	10.58	N
ATOM	7462	C23	HEM	B	501	86.137	18.390	32.384	1.00	14.69	C
ATOM	7463	C9	HEM	B	501	84.789	18.371	32.605	1.00	16.23	C
ATOM	7464	C8	HEM	B	501	84.348	18.122	33.949	1.00	14.46	C
ATOM	7465	C26	HEM	B	501	85.246	17.990	35.088	1.00	16.42	C
ATOM	7466	C7	HEM	B	501	82.998	18.133	33.895	1.00	15.20	C
ATOM	7467	C27	HEM	B	501	82.178	17.763	35.030	1.00	25.70	C
ATOM	7468	C28	HEM	B	501	81.205	16.605	34.939	1.00	29.89	C
ATOM	7469	C29	HEM	B	501	80.575	16.374	36.317	1.00	31.68	C
ATOM	7470	O30	HEM	B	501	79.591	17.125	36.432	1.00	36.78	O
ATOM	7471	O31	HEM	B	501	81.197	15.623	37.157	1.00	30.25	O
ATOM	7472	FE1	HEM	B	501	84.032	18.579	29.734	1.00	2.00	Fe

197/514

Figure 3

Table 3

ATOM	1	CB	PRO	A	30	8.130	62.366	46.987	1.00	45.67	A	C
ATOM	2	CG	PRO	A	30	7.027	61.477	46.462	1.00	45.95	A	C
ATOM	3	C	PRO	A	30	8.204	63.458	49.211	1.00	49.33	A	C
ATOM	4	O	PRO	A	30	7.364	64.342	49.158	1.00	50.63	A	O
ATOM	5	N	PRO	A	30	6.616	61.661	48.775	1.00	46.46	A	N
ATOM	6	CD	PRO	A	30	5.876	61.532	47.513	1.00	47.64	A	C
ATOM	7	CA	PRO	A	30	7.995	62.150	48.485	1.00	47.86	A	C
ATOM	8	N	PRO	A	31	9.352	63.608	49.875	1.00	50.79	A	N
ATOM	9	CD	PRO	A	31	10.523	62.771	49.574	1.00	51.70	A	C
ATOM	10	CA	PRO	A	31	9.754	64.782	50.653	1.00	50.90	A	C
ATOM	11	CB	PRO	A	31	11.169	64.433	51.087	1.00	51.50	A	C
ATOM	12	CG	PRO	A	31	11.684	63.709	49.884	1.00	52.83	A	C
ATOM	13	C	PRO	A	31	9.706	66.040	49.825	1.00	50.47	A	C
ATOM	14	O	PRO	A	31	9.458	65.980	48.622	1.00	50.48	A	O
ATOM	15	N	GLY	A	32	9.934	67.173	50.485	1.00	50.63	A	N
ATOM	16	CA	GLY	A	32	9.924	68.464	49.815	1.00	51.38	A	C
ATOM	17	C	GLY	A	32	9.640	69.599	50.777	1.00	52.13	A	C
ATOM	18	O	GLY	A	32	9.174	69.347	51.891	1.00	52.66	A	O
ATOM	19	N	PRO	A	33	9.921	70.855	50.393	1.00	51.39	A	N
ATOM	20	CD	PRO	A	33	10.484	71.365	49.134	1.00	51.17	A	C
ATOM	21	CA	PRO	A	33	9.645	71.955	51.313	1.00	51.37	A	C
ATOM	22	CB	PRO	A	33	10.246	73.166	50.602	1.00	51.19	A	C
ATOM	23	CG	PRO	A	33	10.087	72.821	49.174	1.00	50.77	A	C
ATOM	24	C	PRO	A	33	8.150	72.085	51.506	1.00	51.33	A	C
ATOM	25	O	PRO	A	33	7.374	71.844	50.575	1.00	50.57	A	O
ATOM	26	N	THR	A	34	7.753	72.442	52.725	1.00	52.77	A	N
ATOM	27	CA	THR	A	34	6.349	72.605	53.040	1.00	52.72	A	C
ATOM	28	CB	THR	A	34	6.094	72.655	54.567	1.00	52.49	A	C
ATOM	29	CG1	THR	A	34	7.263	73.136	55.244	1.00	54.30	A	O
ATOM	30	CG2	THR	A	34	5.742	71.268	55.089	1.00	50.85	A	C
ATOM	31	C	THR	A	34	5.902	73.887	52.366	1.00	53.91	A	C
ATOM	32	O	THR	A	34	6.580	74.921	52.433	1.00	52.15	A	O
ATOM	33	N	PRO	A	35	4.769	73.813	51.654	1.00	54.69	A	N
ATOM	34	CD	PRO	A	35	4.095	72.541	51.315	1.00	54.14	A	C
ATOM	35	CA	PRO	A	35	4.164	74.928	50.923	1.00	55.56	A	C
ATOM	36	CB	PRO	A	35	3.371	74.220	49.839	1.00	55.92	A	C
ATOM	37	CG	PRO	A	35	2.877	73.008	50.555	1.00	55.05	A	C
ATOM	38	C	PRO	A	35	3.283	75.815	51.785	1.00	57.37	A	C
ATOM	39	O	PRO	A	35	2.897	75.451	52.892	1.00	58.50	A	O
ATOM	40	N	LEU	A	36	2.961	76.986	51.265	1.00	58.65	A	N
ATOM	41	CA	LEU	A	36	2.123	77.902	51.993	1.00	60.21	A	C
ATOM	42	CB	LEU	A	36	2.621	79.329	51.812	1.00	59.23	A	C
ATOM	43	CG	LEU	A	36	3.988	79.582	52.440	1.00	58.27	A	C
ATOM	44	CD1	LEU	A	36	4.349	81.045	52.256	1.00	57.20	A	C
ATOM	45	CD2	LEU	A	36	3.976	79.213	53.918	1.00	57.42	A	C
ATOM	46	C	LEU	A	36	0.681	77.773	51.537	1.00	62.23	A	C
ATOM	47	O	LEU	A	36	0.390	77.175	50.497	1.00	62.80	A	O
ATOM	48	N	PRO	A	37	-0.243	78.347	52.318	1.00	63.73	A	N
ATOM	49	CD	PRO	A	37	0.032	79.189	53.504	1.00	64.36	A	C
ATOM	50	CA	PRO	A	37	-1.673	78.312	52.031	1.00	63.85	A	C
ATOM	51	CB	PRO	A	37	-2.189	79.517	52.805	1.00	64.88	A	C
ATOM	52	CG	PRO	A	37	-1.348	79.473	54.053	1.00	64.19	A	C
ATOM	53	C	PRO	A	37	-2.106	78.310	50.557	1.00	64.21	A	C
ATOM	54	O	PRO	A	37	-2.728	77.350	50.102	1.00	65.47	A	O
ATOM	55	N	VAL	A	38	-1.786	79.353	49.800	1.00	62.27	A	N
ATOM	56	CA	VAL	A	38	-2.232	79.376	48.413	1.00	61.21	A	C
ATOM	57	CB	VAL	A	38	-3.266	80.498	48.209	1.00	61.85	A	C
ATOM	58	CG1	VAL	A	38	-2.605	81.856	48.417	1.00	62.61	A	C
ATOM	59	CG2	VAL	A	38	-3.892	80.395	46.826	1.00	61.49	A	C
ATOM	60	C	VAL	A	38	-1.122	79.545	47.385	1.00	60.31	A	C
ATOM	61	O	VAL	A	38	-1.197	79.002	46.283	1.00	59.94	A	O
ATOM	62	N	ILE	A	39	-0.089	80.293	47.744	1.00	58.18	A	N
ATOM	63	CA	ILE	A	39	0.996	80.518	46.817	1.00	56.45	A	C
ATOM	64	CB	ILE	A	39	1.930	81.617	47.321	1.00	56.75	A	C
ATOM	65	CG2	ILE	A	39	1.120	82.854	47.658	1.00	55.59	A	C
ATOM	66	CG1	ILE	A	39	2.690	81.145	48.548	1.00	56.74	A	C
ATOM	67	CD1	ILE	A	39	3.681	82.159	49.054	1.00	59.13	A	C
ATOM	68	C	ILE	A	39	1.790	79.238	46.560	1.00	55.54	A	C
ATOM	69	O	ILE	A	39	2.284	79.012	45.456	1.00	55.67	A	O
ATOM	70	N	GLY	A	40	1.892	78.380	47.568	1.00	54.07	A	N
ATOM	71	CA	GLY	A	40	2.641	77.148	47.393	1.00	51.25	A	C
ATOM	72	C	GLY	A	40	4.095	77.344	47.783	1.00	49.28	A	C

Figure 3

ATOM	73	O	GLY	A	40	4.380	77.868	48.856	1.00	49.68	A	O
ATOM	74	N	ASN	A	41	5.020	76.951	46.913	1.00	46.90	A	N
ATOM	75	CA	ASN	A	41	6.444	77.094	47.211	1.00	44.27	A	C
ATOM	76	CB	ASN	A	41	7.192	75.863	46.780	1.00	42.88	A	C
ATOM	77	CG	ASN	A	41	7.026	74.746	47.738	1.00	42.46	A	C
ATOM	78	OD1	ASN	A	41	7.439	74.849	48.897	1.00	43.21	A	O
ATOM	79	ND2	ASN	A	41	6.414	73.658	47.279	1.00	41.81	A	N
ATOM	80	C	ASN	A	41	7.090	78.262	46.540	1.00	44.12	A	C
ATOM	81	O	ASN	A	41	8.271	78.515	46.736	1.00	43.24	A	O
ATOM	82	N	ILE	A	42	6.311	78.947	45.717	1.00	45.12	A	N
ATOM	83	CA	ILE	A	42	6.784	80.099	44.977	1.00	45.91	A	C
ATOM	84	CB	ILE	A	42	5.616	80.985	44.573	1.00	45.18	A	C
ATOM	85	CG2	ILE	A	42	4.944	81.549	45.816	1.00	43.63	A	C
ATOM	86	CG1	ILE	A	42	6.111	82.111	43.683	1.00	45.53	A	C
ATOM	87	CD1	ILE	A	42	5.010	83.012	43.169	1.00	44.86	A	C
ATOM	88	C	ILE	A	42	7.769	80.926	45.783	1.00	47.39	A	C
ATOM	89	O	ILE	A	42	8.668	81.552	45.229	1.00	48.29	A	O
ATOM	90	N	LEU	A	43	7.602	80.922	47.095	1.00	50.03	A	N
ATOM	91	CA	LEU	A	43	8.476	81.693	47.953	1.00	52.36	A	C
ATOM	92	CB	LEU	A	43	7.899	81.716	49.360	1.00	51.14	A	C
ATOM	93	CG	LEU	A	43	8.190	83.032	50.057	1.00	50.40	A	C
ATOM	94	CD1	LEU	A	43	7.707	84.208	49.192	1.00	49.55	A	C
ATOM	95	CD2	LEU	A	43	7.492	83.021	51.406	1.00	51.07	A	C
ATOM	96	C	LEU	A	43	9.877	81.102	47.976	1.00	53.97	A	C
ATOM	97	O	LEU	A	43	10.842	81.767	48.350	1.00	55.06	A	O
ATOM	98	N	GLN	A	44	9.966	79.843	47.563	1.00	55.10	A	N
ATOM	99	CA	GLN	A	44	11.211	79.089	47.542	1.00	55.99	A	C
ATOM	100	CB	GLN	A	44	10.928	77.621	47.884	1.00	59.02	A	C
ATOM	101	CG	GLN	A	44	10.237	77.347	49.227	1.00	64.16	A	C
ATOM	102	CD	GLN	A	44	11.209	77.323	50.399	1.00	67.79	A	C
ATOM	103	OE1	GLN	A	44	10.974	76.635	51.399	1.00	70.42	A	O
ATOM	104	NE2	GLN	A	44	12.301	78.082	50.288	1.00	69.52	A	N
ATOM	105	C	GLN	A	44	11.898	79.146	46.172	1.00	55.51	A	C
ATOM	106	O	GLN	A	44	12.945	79.772	46.012	1.00	55.85	A	O
ATOM	107	N	ILE	A	45	11.301	78.486	45.186	1.00	53.32	A	N
ATOM	108	CA	ILE	A	45	11.869	78.439	43.854	1.00	51.63	A	C
ATOM	109	CB	ILE	A	45	11.046	77.530	42.966	1.00	50.36	A	C
ATOM	110	CG2	ILE	A	45	10.775	76.231	43.687	1.00	48.63	A	C
ATOM	111	CG1	ILE	A	45	9.705	78.166	42.671	1.00	50.13	A	C
ATOM	112	CD1	ILE	A	45	8.838	77.310	41.792	1.00	51.05	A	C
ATOM	113	C	ILE	A	45	11.972	79.811	43.200	1.00	52.13	A	C
ATOM	114	O	ILE	A	45	12.787	80.025	42.303	1.00	53.60	A	O
ATOM	115	N	GLY	A	46	11.154	80.757	43.633	1.00	53.05	A	N
ATOM	116	CA	GLY	A	46	11.230	82.076	43.037	1.00	53.95	A	C
ATOM	117	C	GLY	A	46	10.459	82.209	41.744	1.00	54.99	A	C
ATOM	118	O	GLY	A	46	9.308	81.792	41.630	1.00	55.97	A	O
ATOM	119	N	ILE	A	47	11.106	82.776	40.738	1.00	56.79	A	N
ATOM	120	CA	ILE	A	47	10.435	82.999	39.463	1.00	58.47	A	C
ATOM	121	CB	ILE	A	47	9.383	84.095	39.660	1.00	57.80	A	C
ATOM	122	CG2	ILE	A	47	10.048	85.326	40.283	1.00	56.72	A	C
ATOM	123	CG1	ILE	A	47	8.690	84.411	38.347	1.00	59.12	A	C
ATOM	124	CD1	ILE	A	47	7.703	85.549	38.476	1.00	61.31	A	C
ATOM	125	C	ILE	A	47	11.470	83.422	38.413	1.00	60.13	A	C
ATOM	126	O	ILE	A	47	11.213	83.395	37.206	1.00	58.75	A	O
ATOM	127	N	LYS	A	48	12.639	83.809	38.925	1.00	61.39	A	N
ATOM	128	CA	LYS	A	48	13.795	84.233	38.149	1.00	63.32	A	C
ATOM	129	CB	LYS	A	48	14.692	85.143	39.019	1.00	65.16	A	C
ATOM	130	CG	LYS	A	48	14.870	84.672	40.492	1.00	68.26	A	C
ATOM	131	CD	LYS	A	48	14.999	85.830	41.541	1.00	68.15	A	C
ATOM	132	CE	LYS	A	48	14.974	85.300	43.001	1.00	67.65	A	C
ATOM	133	NZ	LYS	A	48	14.899	86.346	44.066	1.00	64.57	A	N
ATOM	134	C	LYS	A	48	14.536	82.976	37.642	1.00	64.00	A	C
ATOM	135	O	LYS	A	48	14.218	82.485	36.555	1.00	64.64	A	O
ATOM	136	N	ASP	A	49	15.486	82.434	38.412	1.00	63.38	A	N
ATOM	137	CA	ASP	A	49	16.231	81.220	38.004	1.00	62.53	A	C
ATOM	138	CB	ASP	A	49	17.741	81.364	38.307	1.00	63.62	A	C
ATOM	139	CG	ASP	A	49	18.610	80.319	37.573	1.00	64.89	A	C
ATOM	140	OD1	ASP	A	49	19.863	80.400	37.679	1.00	63.90	A	O
ATOM	141	OD2	ASP	A	49	18.052	79.421	36.887	1.00	66.46	A	O
ATOM	142	C	ASP	A	49	15.685	79.996	38.734	1.00	60.66	A	C
ATOM	143	O	ASP	A	49	16.305	79.471	39.661	1.00	60.61	A	O
ATOM	144	N	ILE	A	50	14.519	79.542	38.301	1.00	58.74	A	N
ATOM	145	CA	ILE	A	50	13.881	78.398	38.916	1.00	57.73	A	C
ATOM	146	CB	ILE	A	50	12.506	78.117	38.230	1.00	57.22	A	C
ATOM	147	CG2	ILE	A	50	11.968	79.399	37.608	1.00	57.89	A	C

Figure 3

ATOM	148	CG1	ILE	A	50	12.652	77.094	37.112	1.00	58.76	A	C
ATOM	149	CD1	ILE	A	50	12.268	75.723	37.537	1.00	58.46	A	C
ATOM	150	C	ILE	A	50	14.808	77.184	38.849	1.00	57.10	A	C
ATOM	151	O	ILE	A	50	14.752	76.295	39.704	1.00	56.67	A	O
ATOM	152	N	SER	A	51	15.682	77.143	37.853	1.00	56.54	A	N
ATOM	153	CA	SER	A	51	16.583	76.007	37.769	1.00	57.44	A	C
ATOM	154	CB	SER	A	51	17.417	76.032	36.496	1.00	58.96	A	C
ATOM	155	OG	SER	A	51	18.395	74.994	36.568	1.00	60.05	A	O
ATOM	156	C	SER	A	51	17.538	75.926	38.947	1.00	56.95	A	C
ATOM	157	O	SER	A	51	17.524	74.949	39.682	1.00	56.91	A	O
ATOM	158	N	LYS	A	52	18.373	76.949	39.107	1.00	56.48	A	N
ATOM	159	CA	LYS	A	52	19.355	76.987	40.180	1.00	56.04	A	C
ATOM	160	CB	LYS	A	52	20.109	78.325	40.170	1.00	59.24	A	C
ATOM	161	CG	LYS	A	52	21.644	78.235	40.389	1.00	64.17	A	C
ATOM	162	CD	LYS	A	52	22.414	77.613	39.179	1.00	67.46	A	C
ATOM	163	CE	LYS	A	52	22.502	78.550	37.952	1.00	67.87	A	C
ATOM	164	NZ	LYS	A	52	23.127	77.847	36.783	1.00	69.37	A	N
ATOM	165	C	LYS	A	52	18.701	76.779	41.535	1.00	54.36	A	C
ATOM	166	O	LYS	A	52	19.376	76.484	42.513	1.00	55.13	A	O
ATOM	167	N	SER	A	53	17.388	76.942	41.603	1.00	50.67	A	N
ATOM	168	CA	SER	A	53	16.703	76.748	42.865	1.00	47.30	A	C
ATOM	169	CB	SER	A	53	15.372	77.478	42.866	1.00	47.45	A	C
ATOM	170	OG	SER	A	53	15.586	78.854	42.629	1.00	49.17	A	O
ATOM	171	C	SER	A	53	16.473	75.268	43.000	1.00	45.35	A	C
ATOM	172	O	SER	A	53	16.527	74.716	44.094	1.00	45.51	A	O
ATOM	173	N	LEU	A	54	16.218	74.614	41.876	1.00	42.35	A	N
ATOM	174	CA	LEU	A	54	15.989	73.188	41.922	1.00	39.04	A	C
ATOM	175	CB	LEU	A	54	15.539	72.676	40.563	1.00	36.42	A	C
ATOM	176	CG	LEU	A	54	14.136	73.069	40.153	1.00	32.43	A	C
ATOM	177	CD1	LEU	A	54	13.838	72.334	38.879	1.00	32.45	A	C
ATOM	178	CD2	LEU	A	54	13.114	72.693	41.215	1.00	30.68	A	C
ATOM	179	C	LEU	A	54	17.248	72.465	42.376	1.00	37.97	A	C
ATOM	180	O	LEU	A	54	17.165	71.513	43.141	1.00	37.31	A	O
ATOM	181	N	THR	A	55	18.411	72.922	41.924	1.00	37.26	A	N
ATOM	182	CA	THR	A	55	19.655	72.282	42.320	1.00	37.55	A	C
ATOM	183	CB	THR	A	55	20.878	72.874	41.574	1.00	37.35	A	C
ATOM	184	OG1	THR	A	55	20.796	72.548	40.181	1.00	37.73	A	O
ATOM	185	CG2	THR	A	55	22.175	72.309	42.129	1.00	36.42	A	C
ATOM	186	C	THR	A	55	19.856	72.431	43.820	1.00	37.00	A	C
ATOM	187	O	THR	A	55	20.093	71.448	44.512	1.00	38.32	A	O
ATOM	188	N	ASN	A	56	19.755	73.649	44.335	1.00	35.82	A	N
ATOM	189	CA	ASN	A	56	19.934	73.842	45.765	1.00	33.55	A	C
ATOM	190	CB	ASN	A	56	19.787	75.305	46.131	1.00	34.80	A	C
ATOM	191	CG	ASN	A	56	20.895	76.134	45.568	1.00	36.65	A	C
ATOM	192	OD1	ASN	A	56	22.054	75.726	45.595	1.00	38.21	A	O
ATOM	193	ND2	ASN	A	56	20.559	77.305	45.054	1.00	38.43	A	N
ATOM	194	C	ASN	A	56	18.934	73.016	46.530	1.00	32.86	A	C
ATOM	195	O	ASN	A	56	19.294	72.279	47.430	1.00	32.44	A	O
ATOM	196	N	LEU	A	57	17.671	73.138	46.168	1.00	32.06	A	N
ATOM	197	CA	LEU	A	57	16.652	72.367	46.827	1.00	32.17	A	C
ATOM	198	CB	LEU	A	57	15.333	72.505	46.104	1.00	32.46	A	C
ATOM	199	CG	LEU	A	57	14.614	73.784	46.464	1.00	33.28	A	C
ATOM	200	CD1	LEU	A	57	13.631	74.094	45.377	1.00	33.96	A	C
ATOM	201	CD2	LEU	A	57	13.941	73.644	47.819	1.00	32.34	A	C
ATOM	202	C	LEU	A	57	17.012	70.909	46.874	1.00	32.89	A	C
ATOM	203	O	LEU	A	57	16.626	70.210	47.791	1.00	33.55	A	O
ATOM	204	N	SER	A	58	17.734	70.426	45.878	1.00	33.67	A	N
ATOM	205	CA	SER	A	58	18.084	69.024	45.891	1.00	33.98	A	C
ATOM	206	CB	SER	A	58	18.511	68.567	44.508	1.00	34.59	A	C
ATOM	207	OG	SER	A	58	19.818	69.015	44.223	1.00	36.25	A	O
ATOM	208	C	SER	A	58	19.198	68.725	46.881	1.00	34.63	A	C
ATOM	209	O	SER	A	58	19.208	67.649	47.466	1.00	34.99	A	O
ATOM	210	N	LYS	A	59	20.140	69.650	47.065	1.00	35.25	A	N
ATOM	211	CA	LYS	A	59	21.229	69.411	48.002	1.00	35.63	A	C
ATOM	212	CB	LYS	A	59	22.223	70.574	48.012	1.00	36.68	A	C
ATOM	213	CG	LYS	A	59	23.043	70.723	46.728	1.00	40.81	A	C
ATOM	214	CD	LYS	A	59	23.850	72.033	46.690	1.00	44.20	A	C
ATOM	215	CE	LYS	A	59	25.358	71.808	46.794	1.00	45.65	A	C
ATOM	216	NZ	LYS	A	59	26.118	73.063	46.535	1.00	46.73	A	N
ATOM	217	C	LYS	A	59	20.678	69.215	49.398	1.00	35.70	A	C
ATOM	218	O	LYS	A	59	21.342	68.647	50.266	1.00	35.70	A	O
ATOM	219	N	VAL	A	60	19.455	69.661	49.624	1.00	35.22	A	N
ATOM	220	CA	VAL	A	60	18.890	69.506	50.940	1.00	35.49	A	C
ATOM	221	CB	VAL	A	60	18.373	70.844	51.477	1.00	35.32	A	C
ATOM	222	CG1	VAL	A	60	17.382	71.430	50.515	1.00	37.03	A	C

200/514

Figure 3

ATOM	223	CG2	VAL	A	60	17.732	70.643	52.838	1.00	37.09	A	C
ATOM	224	C	VAL	A	60	17.760	68.500	51.029	1.00	35.57	A	C
ATOM	225	O	VAL	A	60	17.463	68.005	52.105	1.00	35.63	A	O
ATOM	226	N	TYR	A	61	17.129	68.174	49.916	1.00	35.76	A	N
ATOM	227	CA	TYR	A	61	16.034	67.235	49.998	1.00	36.90	A	C
ATOM	228	CB	TYR	A	61	14.776	67.865	49.406	1.00	39.68	A	C
ATOM	229	CG	TYR	A	61	14.043	68.781	50.369	1.00	42.39	A	C
ATOM	230	CD1	TYR	A	61	13.128	68.265	51.290	1.00	46.43	A	C
ATOM	231	CE1	TYR	A	61	12.452	69.100	52.187	1.00	46.02	A	C
ATOM	232	CD2	TYR	A	61	14.267	70.158	50.370	1.00	43.75	A	C
ATOM	233	CE2	TYR	A	61	13.595	71.004	51.267	1.00	45.09	A	C
ATOM	234	CZ	TYR	A	61	12.692	70.467	52.169	1.00	45.84	A	C
ATOM	235	OH	TYR	A	61	12.031	71.275	53.072	1.00	48.49	A	O
ATOM	236	C	TYR	A	61	16.328	65.901	49.339	1.00	36.91	A	C
ATOM	237	O	TYR	A	61	15.702	64.900	49.664	1.00	37.90	A	O
ATOM	238	N	GLY	A	62	17.283	65.885	48.420	1.00	36.89	A	N
ATOM	239	CA	GLY	A	62	17.621	64.646	47.757	1.00	35.57	A	C
ATOM	240	C	GLY	A	62	17.488	64.767	46.263	1.00	35.34	A	C
ATOM	241	O	GLY	A	62	17.266	65.854	45.747	1.00	36.17	A	O
ATOM	242	N	PRO	A	63	17.639	63.665	45.535	1.00	33.77	A	N
ATOM	243	CD	PRO	A	63	18.214	62.398	45.997	1.00	33.67	A	C
ATOM	244	CA	PRO	A	63	17.532	63.658	44.088	1.00	34.06	A	C
ATOM	245	CB	PRO	A	63	18.362	62.457	43.704	1.00	35.46	A	C
ATOM	246	CG	PRO	A	63	18.001	61.491	44.801	1.00	34.16	A	C
ATOM	247	C	PRO	A	63	16.097	63.489	43.654	1.00	33.31	A	C
ATOM	248	O	PRO	A	63	15.803	63.491	42.469	1.00	35.57	A	O
ATOM	249	N	VAL	A	64	15.193	63.297	44.594	1.00	32.09	A	N
ATOM	250	CA	VAL	A	64	13.811	63.137	44.190	1.00	31.43	A	C
ATOM	251	CB	VAL	A	64	13.402	61.671	44.052	1.00	30.34	A	C
ATOM	252	CG1	VAL	A	64	11.963	61.602	43.605	1.00	30.29	A	C
ATOM	253	CG2	VAL	A	64	14.290	60.967	43.045	1.00	29.93	A	C
ATOM	254	C	VAL	A	64	12.894	63.790	45.173	1.00	31.69	A	C
ATOM	255	O	VAL	A	64	12.423	63.166	46.117	1.00	31.01	A	O
ATOM	256	N	PHE	A	65	12.637	65.064	44.931	1.00	32.12	A	N
ATOM	257	CA	PHE	A	65	11.785	65.824	45.810	1.00	33.39	A	C
ATOM	258	CB	PHE	A	65	12.549	67.001	46.383	1.00	32.33	A	C
ATOM	259	CG	PHE	A	65	13.186	67.888	45.350	1.00	31.47	A	C
ATOM	260	CD1	PHE	A	65	14.322	67.490	44.661	1.00	30.56	A	C
ATOM	261	CD2	PHE	A	65	12.715	69.168	45.146	1.00	30.74	A	C
ATOM	262	CE1	PHE	A	65	14.977	68.369	43.807	1.00	31.15	A	C
ATOM	263	CE2	PHE	A	65	13.370	70.044	44.293	1.00	31.52	A	C
ATOM	264	CZ	PHE	A	65	14.496	69.641	43.632	1.00	31.80	A	C
ATOM	265	C	PHE	A	65	10.528	66.338	45.149	1.00	34.52	A	C
ATOM	266	O	PHE	A	65	10.464	66.434	43.926	1.00	36.25	A	O
ATOM	267	N	THR	A	66	9.543	66.687	45.982	1.00	36.14	A	N
ATOM	268	CA	THR	A	66	8.240	67.214	45.546	1.00	36.60	A	C
ATOM	269	CB	THR	A	66	7.089	66.666	46.418	1.00	37.45	A	C
ATOM	270	CG1	THR	A	66	7.182	65.238	46.511	1.00	40.47	A	O
ATOM	271	CG2	THR	A	66	5.750	67.048	45.815	1.00	38.72	A	C
ATOM	272	C	THR	A	66	8.190	68.738	45.647	1.00	36.37	A	C
ATOM	273	O	THR	A	66	8.631	69.314	46.635	1.00	36.66	A	O
ATOM	274	N	LEU	A	67	7.633	69.393	44.637	1.00	36.49	A	N
ATOM	275	CA	LEU	A	67	7.538	70.841	44.678	1.00	37.45	A	C
ATOM	276	CB	LEU	A	67	8.495	71.448	43.666	1.00	35.26	A	C
ATOM	277	CG	LEU	A	67	9.374	72.528	44.289	1.00	34.88	A	C
ATOM	278	CD1	LEU	A	67	10.004	72.006	45.549	1.00	33.85	A	C
ATOM	279	CD2	LEU	A	67	10.433	72.968	43.302	1.00	35.14	A	C
ATOM	280	C	LEU	A	67	6.116	71.315	44.427	1.00	39.38	A	C
ATOM	281	O	LEU	A	67	5.336	70.615	43.796	1.00	40.15	A	O
ATOM	282	N	TYR	A	68	5.757	72.490	44.927	1.00	42.08	A	N
ATOM	283	CA	TYR	A	68	4.397	72.961	44.701	1.00	45.28	A	C
ATOM	284	CB	TYR	A	68	3.636	73.137	46.026	1.00	46.41	A	C
ATOM	285	CG	TYR	A	68	3.001	71.868	46.582	1.00	46.84	A	C
ATOM	286	CD1	TYR	A	68	3.642	71.120	47.568	1.00	47.33	A	C
ATOM	287	CE1	TYR	A	68	3.080	69.942	48.075	1.00	48.35	A	C
ATOM	288	CD2	TYR	A	68	1.770	71.406	46.110	1.00	48.51	A	C
ATOM	289	CE2	TYR	A	68	1.200	70.224	46.610	1.00	49.03	A	C
ATOM	290	CZ	TYR	A	68	1.869	69.498	47.597	1.00	48.33	A	C
ATOM	291	OH	TYR	A	68	1.326	68.327	48.095	1.00	50.71	A	O
ATOM	292	C	TYR	A	68	4.270	74.240	43.883	1.00	47.41	A	C
ATOM	293	O	TYR	A	68	4.597	75.334	44.335	1.00	47.91	A	O
ATOM	294	N	PHE	A	69	3.795	74.082	42.656	1.00	48.63	A	N
ATOM	295	CA	PHE	A	69	3.564	75.216	41.787	1.00	50.91	A	C
ATOM	296	CB	PHE	A	69	3.876	74.875	40.344	1.00	49.97	A	C
ATOM	297	CG	PHE	A	69	5.329	74.743	40.081	1.00	48.40	A	C

201/514

Figure 3

ATOM	298	CD1	PHE	A	69	5.984	75.653	39.269	1.00	49.90	A	C
ATOM	299	CD2	PHE	A	69	6.058	73.734	40.689	1.00	48.86	A	C
ATOM	300	CE1	PHE	A	69	7.351	75.567	39.076	1.00	50.32	A	C
ATOM	301	CE2	PHE	A	69	7.415	73.635	40.508	1.00	48.76	A	C
ATOM	302	CZ	PHE	A	69	8.068	74.548	39.697	1.00	49.66	A	C
ATOM	303	C	PHE	A	69	2.091	75.495	41.964	1.00	53.73	A	C
ATOM	304	O	PHE	A	69	1.227	74.807	41.404	1.00	53.62	A	O
ATOM	305	N	GLY	A	70	1.816	76.510	42.777	1.00	54.27	A	N
ATOM	306	CA	GLY	A	70	0.449	76.876	43.088	1.00	54.26	A	C
ATOM	307	C	GLY	A	70	-0.084	75.789	43.990	1.00	54.00	A	C
ATOM	308	O	GLY	A	70	0.355	75.651	45.133	1.00	53.92	A	O
ATOM	309	N	LEU	A	71	-1.035	75.017	43.484	1.00	53.56	A	N
ATOM	310	CA	LEU	A	71	-1.610	73.919	44.256	1.00	54.65	A	C
ATOM	311	CB	LEU	A	71	-3.138	74.036	44.330	1.00	56.55	A	C
ATOM	312	CG	LEU	A	71	-3.802	75.261	44.976	1.00	57.86	A	C
ATOM	313	CD1	LEU	A	71	-5.293	75.213	44.681	1.00	59.29	A	C
ATOM	314	CD2	LEU	A	71	-3.556	75.277	46.479	1.00	57.96	A	C
ATOM	315	C	LEU	A	71	-1.243	72.649	43.518	1.00	54.17	A	C
ATOM	316	O	LEU	A	71	-1.688	71.555	43.871	1.00	54.26	A	O
ATOM	317	N	LYS	A	72	-0.423	72.809	42.482	1.00	54.12	A	N
ATOM	318	CA	LYS	A	72	0.008	71.674	41.678	1.00	53.55	A	C
ATOM	319	CB	LYS	A	72	0.193	72.098	40.212	1.00	55.94	A	C
ATOM	320	CG	LYS	A	72	0.116	70.940	39.224	1.00	58.48	A	C
ATOM	321	CD	LYS	A	72	0.082	71.412	37.767	1.00	60.29	A	C
ATOM	322	CE	LYS	A	72	-0.019	70.220	36.812	1.00	61.43	A	C
ATOM	323	NZ	LYS	A	72	-1.169	69.313	37.158	1.00	61.31	A	N
ATOM	324	C	LYS	A	72	1.302	71.092	42.234	1.00	52.23	A	C
ATOM	325	O	LYS	A	72	2.292	71.799	42.400	1.00	52.92	A	O
ATOM	326	N	PRO	A	73	1.291	69.796	42.571	1.00	51.04	A	N
ATOM	327	CD	PRO	A	73	0.103	68.930	42.704	1.00	51.22	A	C
ATOM	328	CA	PRO	A	73	2.477	69.133	43.111	1.00	49.79	A	C
ATOM	329	CB	PRO	A	73	1.881	67.989	43.920	1.00	49.81	A	C
ATOM	330	CG	PRO	A	73	0.713	67.590	43.079	1.00	50.73	A	C
ATOM	331	C	PRO	A	73	3.345	68.648	41.958	1.00	48.08	A	C
ATOM	332	O	PRO	A	73	2.835	68.129	40.966	1.00	48.26	A	O
ATOM	333	N	ILE	A	74	4.654	68.828	42.089	1.00	45.88	A	N
ATOM	334	CA	ILE	A	74	5.596	68.415	41.055	1.00	44.14	A	C
ATOM	335	CB	ILE	A	74	6.308	69.632	40.422	1.00	44.72	A	C
ATOM	336	CG2	ILE	A	74	7.275	69.167	39.353	1.00	45.82	A	C
ATOM	337	CG1	ILE	A	74	5.285	70.596	39.827	1.00	44.97	A	C
ATOM	338	CD1	ILE	A	74	4.523	70.050	38.661	1.00	46.05	A	C
ATOM	339	C	ILE	A	74	6.667	67.514	41.651	1.00	41.82	A	C
ATOM	340	O	ILE	A	74	7.009	67.641	42.822	1.00	42.17	A	O
ATOM	341	N	VAL	A	75	7.188	66.602	40.840	1.00	39.71	A	N
ATOM	342	CA	VAL	A	75	8.247	65.705	41.279	1.00	38.49	A	C
ATOM	343	CB	VAL	A	75	7.862	64.235	41.070	1.00	37.65	A	C
ATOM	344	CG1	VAL	A	75	8.825	63.326	41.805	1.00	38.54	A	C
ATOM	345	CG2	VAL	A	75	6.454	64.011	41.544	1.00	38.02	A	C
ATOM	346	C	VAL	A	75	9.458	66.045	40.415	1.00	37.21	A	C
ATOM	347	O	VAL	A	75	9.420	65.906	39.190	1.00	38.14	A	O
ATOM	348	N	VAL	A	76	10.514	66.524	41.065	1.00	35.14	A	N
ATOM	349	CA	VAL	A	76	11.743	66.930	40.388	1.00	34.54	A	C
ATOM	350	CB	VAL	A	76	12.329	68.197	41.058	1.00	34.09	A	C
ATOM	351	CG1	VAL	A	76	13.515	68.732	40.278	1.00	33.51	A	C
ATOM	352	CG2	VAL	A	76	11.256	69.237	41.201	1.00	34.58	A	C
ATOM	353	C	VAL	A	76	12.794	65.820	40.465	1.00	33.28	A	C
ATOM	354	O	VAL	A	76	13.116	65.346	41.546	1.00	35.03	A	O
ATOM	355	N	LEU	A	77	13.313	65.388	39.325	1.00	30.43	A	N
ATOM	356	CA	LEU	A	77	14.342	64.367	39.329	1.00	28.19	A	C
ATOM	357	CB	LEU	A	77	14.104	63.369	38.215	1.00	27.08	A	C
ATOM	358	CG	LEU	A	77	12.670	62.874	38.185	1.00	27.37	A	C
ATOM	359	CD1	LEU	A	77	12.511	61.899	37.045	1.00	28.13	A	C
ATOM	360	CD2	LEU	A	77	12.295	62.223	39.500	1.00	28.04	A	C
ATOM	361	C	LEU	A	77	15.643	65.113	39.108	1.00	28.28	A	C
ATOM	362	O	LEU	A	77	15.800	65.803	38.104	1.00	28.32	A	O
ATOM	363	N	HIS	A	78	16.586	64.977	40.030	1.00	30.59	A	N
ATOM	364	CA	HIS	A	78	17.806	65.729	39.876	1.00	32.31	A	C
ATOM	365	CB	HIS	A	78	18.190	66.380	41.186	1.00	33.23	A	C
ATOM	366	CG	HIS	A	78	19.078	67.565	41.007	1.00	34.53	A	C
ATOM	367	CD2	HIS	A	78	18.841	68.760	40.413	1.00	37.11	A	C
ATOM	368	ND1	HIS	A	78	20.409	67.577	41.370	1.00	36.57	A	N
ATOM	369	CE1	HIS	A	78	20.955	68.725	41.001	1.00	37.86	A	C
ATOM	370	NE2	HIS	A	78	20.025	69.460	40.417	1.00	38.97	A	N
ATOM	371	C	HIS	A	78	19.038	65.077	39.305	1.00	34.95	A	C
ATOM	372	O	HIS	A	78	19.385	65.300	38.152	1.00	36.29	A	O

Figure 3

ATOM	373	N	GLY	A	79	19.731	64.290	40.114	1.00	36.88	A	N
ATOM	374	CA	GLY	A	79	20.958	63.666	39.637	1.00	38.70	A	C
ATOM	375	C	GLY	A	79	20.783	62.757	38.438	1.00	39.18	A	C
ATOM	376	O	GLY	A	79	19.736	62.129	38.286	1.00	40.93	A	O
ATOM	377	N	TYR	A	80	21.801	62.682	37.586	1.00	39.24	A	N
ATOM	378	CA	TYR	A	80	21.742	61.811	36.407	1.00	40.08	A	C
ATOM	379	CB	TYR	A	80	23.144	61.594	35.809	1.00	41.68	A	C
ATOM	380	CG	TYR	A	80	23.234	60.414	34.836	1.00	42.83	A	C
ATOM	381	CD1	TYR	A	80	22.805	60.531	33.512	1.00	43.76	A	C
ATOM	382	CE1	TYR	A	80	22.854	59.440	32.619	1.00	45.59	A	C
ATOM	383	CD2	TYR	A	80	23.719	59.178	35.250	1.00	43.68	A	C
ATOM	384	CE2	TYR	A	80	23.771	58.079	34.369	1.00	46.67	A	C
ATOM	385	CZ	TYR	A	80	23.335	58.216	33.055	1.00	46.33	A	C
ATOM	386	OH	TYR	A	80	23.362	57.128	32.197	1.00	47.99	A	O
ATOM	387	C	TYR	A	80	21.166	60.440	36.750	1.00	39.86	A	C
ATOM	388	O	TYR	A	80	20.232	59.976	36.105	1.00	38.64	A	O
ATOM	389	N	GLU	A	81	21.759	59.796	37.757	1.00	42.87	A	N
ATOM	390	CA	GLU	A	81	21.334	58.471	38.184	1.00	44.73	A	C
ATOM	391	CB	GLU	A	81	21.938	58.126	39.552	1.00	48.22	A	C
ATOM	392	CG	GLU	A	81	23.420	57.732	39.479	1.00	56.18	A	C
ATOM	393	CD	GLU	A	81	23.690	56.549	38.533	1.00	60.53	A	C
ATOM	394	OE1	GLU	A	81	24.865	56.401	38.085	1.00	61.57	A	O
ATOM	395	OE2	GLU	A	81	22.735	55.772	38.241	1.00	62.72	A	O
ATOM	396	C	GLU	A	81	19.820	58.349	38.228	1.00	44.43	A	C
ATOM	397	O	GLU	A	81	19.238	57.437	37.635	1.00	44.37	A	O
ATOM	398	N	ALA	A	82	19.182	59.274	38.935	1.00	44.32	A	N
ATOM	399	CA	ALA	A	82	17.726	59.293	39.050	1.00	41.86	A	C
ATOM	400	CB	ALA	A	82	17.313	60.361	40.028	1.00	41.85	A	C
ATOM	401	C	ALA	A	82	17.101	59.569	37.693	1.00	42.27	A	C
ATOM	402	O	ALA	A	82	16.173	58.880	37.278	1.00	43.09	A	O
ATOM	403	N	VAL	A	83	17.620	60.580	36.999	1.00	41.38	A	N
ATOM	404	CA	VAL	A	83	17.100	60.963	35.688	1.00	40.30	A	C
ATOM	405	CB	VAL	A	83	17.984	62.012	35.026	1.00	39.40	A	C
ATOM	406	CG1	VAL	A	83	17.291	62.560	33.805	1.00	38.81	A	C
ATOM	407	CG2	VAL	A	83	18.325	63.097	36.006	1.00	39.37	A	C
ATOM	408	C	VAL	A	83	17.064	59.772	34.764	1.00	41.16	A	C
ATOM	409	O	VAL	A	83	16.072	59.511	34.077	1.00	40.06	A	O
ATOM	410	N	LYS	A	84	18.176	59.051	34.751	1.00	43.70	A	N
ATOM	411	CA	LYS	A	84	18.304	57.873	33.913	1.00	47.17	A	C
ATOM	412	CB	LYS	A	84	19.695	57.265	34.065	1.00	49.31	A	C
ATOM	413	CG	LYS	A	84	19.855	55.976	33.290	1.00	52.16	A	C
ATOM	414	CD	LYS	A	84	21.106	55.220	33.675	1.00	54.63	A	C
ATOM	415	CE	LYS	A	84	20.808	53.716	33.835	1.00	56.64	A	C
ATOM	416	NZ	LYS	A	84	20.513	52.985	32.552	1.00	55.13	A	N
ATOM	417	C	LYS	A	84	17.283	56.826	34.299	1.00	47.55	A	C
ATOM	418	O	LYS	A	84	16.481	56.379	33.475	1.00	47.60	A	O
ATOM	419	N	GLU	A	85	17.330	56.447	35.570	1.00	48.31	A	N
ATOM	420	CA	GLU	A	85	16.442	55.427	36.100	1.00	49.59	A	C
ATOM	421	CB	GLU	A	85	16.541	55.367	37.628	1.00	51.52	A	C
ATOM	422	CG	GLU	A	85	16.180	54.008	38.211	1.00	54.37	A	C
ATOM	423	CD	GLU	A	85	16.363	53.936	39.720	1.00	57.04	A	C
ATOM	424	OE1	GLU	A	85	17.367	54.494	40.232	1.00	56.86	A	O
ATOM	425	OE2	GLU	A	85	15.507	53.308	40.400	1.00	58.86	A	O
ATOM	426	C	GLU	A	85	14.993	55.637	35.688	1.00	49.94	A	C
ATOM	427	O	GLU	A	85	14.268	54.672	35.441	1.00	51.24	A	O
ATOM	428	N	ALA	A	86	14.566	56.891	35.596	1.00	48.63	A	N
ATOM	429	CA	ALA	A	86	13.185	57.163	35.221	1.00	46.77	A	C
ATOM	430	CB	ALA	A	86	12.723	58.470	35.831	1.00	47.24	A	C
ATOM	431	C-	ALA	A	86	13.020	57.205	33.714	1.00	45.47	A	C
ATOM	432	O	ALA	A	86	12.336	56.366	33.132	1.00	46.08	A	O
ATOM	433	N	LEU	A	87	13.657	58.183	33.090	1.00	45.71	A	N
ATOM	434	CA	LEU	A	87	13.543	58.349	31.660	1.00	46.41	A	C
ATOM	435	CB	LEU	A	87	14.430	59.496	31.190	1.00	46.54	A	C
ATOM	436	CG	LEU	A	87	13.709	60.825	30.931	1.00	46.20	A	C
ATOM	437	CD1	LEU	A	87	13.153	61.388	32.216	1.00	45.94	A	C
ATOM	438	CD2	LEU	A	87	14.682	61.798	30.304	1.00	46.40	A	C
ATOM	439	C	LEU	A	87	13.827	57.104	30.832	1.00	47.16	A	C
ATOM	440	O	LEU	A	87	13.180	56.890	29.806	1.00	47.96	A	O
ATOM	441	N	ILE	A	88	14.772	56.269	31.255	1.00	48.10	A	N
ATOM	442	CA	ILE	A	88	15.066	55.063	30.478	1.00	48.73	A	C
ATOM	443	CB	ILE	A	88	16.573	54.910	30.198	1.00	47.93	A	C
ATOM	444	CG2	ILE	A	88	16.826	53.609	29.457	1.00	48.12	A	C
ATOM	445	CG1	ILE	A	88	17.069	56.065	29.329	1.00	47.53	A	C
ATOM	446	CD1	ILE	A	88	18.555	55.993	29.039	1.00	47.36	A	C
ATOM	447	C	ILE	A	88	14.549	53.759	31.086	1.00	50.13	A	C

203/514

Figure 3

ATOM	448	O	ILE	A	88	13.680	53.110	30.505	1.00	50.03	A	O
ATOM	449	N	ASP	A	89	15.085	53.367	32.238	1.00	51.78	A	N
ATOM	450	CA	ASP	A	89	14.659	52.129	32.883	1.00	54.23	A	C
ATOM	451	CB	ASP	A	89	15.337	51.977	34.261	1.00	55.93	A	C
ATOM	452	CG	ASP	A	89	16.886	51.951	34.182	1.00	58.78	A	C
ATOM	453	OD1	ASP	A	89	17.534	51.666	35.230	1.00	60.26	A	O
ATOM	454	OD2	ASP	A	89	17.458	52.218	33.094	1.00	58.09	A	O
ATOM	455	C	ASP	A	89	13.121	52.024	33.011	1.00	55.37	A	C
ATOM	456	O	ASP	A	89	12.562	50.927	32.926	1.00	56.38	A	O
ATOM	457	N	LEU	A	90	12.446	53.152	33.226	1.00	56.13	A	N
ATOM	458	CA	LEU	A	90	10.984	53.187	33.329	1.00	56.25	A	C
ATOM	459	CB	LEU	A	90	10.555	53.764	34.665	1.00	57.00	A	C
ATOM	460	CG	LEU	A	90	10.801	52.893	35.888	1.00	57.71	A	C
ATOM	461	CD1	LEU	A	90	10.116	51.568	35.649	1.00	59.22	A	C
ATOM	462	CD2	LEU	A	90	12.284	52.703	36.128	1.00	57.89	A	C
ATOM	463	C	LEU	A	90	10.452	54.084	32.229	1.00	57.31	A	C
ATOM	464	O	LEU	A	90	9.484	54.826	32.418	1.00	57.43	A	O
ATOM	465	N	GLY	A	91	11.105	54.013	31.078	1.00	58.26	A	N
ATOM	466	CA	GLY	A	91	10.724	54.835	29.949	1.00	58.98	A	C
ATOM	467	C	GLY	A	91	9.240	54.995	29.718	1.00	58.93	A	C
ATOM	468	O	GLY	A	91	8.731	56.114	29.726	1.00	59.48	A	O
ATOM	469	N	GLU	A	92	8.538	53.888	29.510	1.00	58.65	A	N
ATOM	470	CA	GLU	A	92	7.112	53.976	29.250	1.00	59.42	A	C
ATOM	471	CB	GLU	A	92	6.493	52.587	29.068	1.00	61.87	A	C
ATOM	472	CG	GLU	A	92	6.111	52.252	27.615	1.00	64.82	A	C
ATOM	473	CD	GLU	A	92	5.081	53.222	27.025	1.00	67.38	A	C
ATOM	474	OE1	GLU	A	92	4.106	53.587	27.732	1.00	66.53	A	O
ATOM	475	OE2	GLU	A	92	5.237	53.612	25.839	1.00	69.60	A	O
ATOM	476	C	GLU	A	92	6.394	54.720	30.357	1.00	58.41	A	C
ATOM	477	O	GLU	A	92	5.577	55.602	30.093	1.00	58.05	A	O
ATOM	478	N	GLU	A	93	6.713	54.380	31.598	1.00	56.02	A	N
ATOM	479	CA	GLU	A	93	6.075	55.016	32.743	1.00	55.93	A	C
ATOM	480	CB	GLU	A	93	6.606	54.383	34.040	1.00	57.74	A	C
ATOM	481	CG	GLU	A	93	6.194	52.908	34.295	1.00	59.51	A	C
ATOM	482	CD	GLU	A	93	6.855	51.886	33.351	1.00	62.22	A	C
ATOM	483	OE1	GLU	A	93	8.112	51.867	33.226	1.00	63.66	A	O
ATOM	484	OE2	GLU	A	93	6.116	51.071	32.750	1.00	63.26	A	O
ATOM	485	C	GLU	A	93	6.261	56.544	32.787	1.00	54.09	A	C
ATOM	486	O	GLU	A	93	5.519	57.248	33.475	1.00	54.35	A	O
ATOM	487	N	PHE	A	94	7.235	57.063	32.049	1.00	52.25	A	N
ATOM	488	CA	PHE	A	94	7.495	58.504	32.055	1.00	50.57	A	C
ATOM	489	CB	PHE	A	94	8.896	58.756	32.610	1.00	49.12	A	C
ATOM	490	CG	PHE	A	94	9.007	58.571	34.108	1.00	46.48	A	C
ATOM	491	CD1	PHE	A	94	8.739	59.626	34.975	1.00	45.81	A	C
ATOM	492	CD2	PHE	A	94	9.396	57.350	34.651	1.00	47.05	A	C
ATOM	493	CE1	PHE	A	94	8.861	59.475	36.355	1.00	45.91	A	C
ATOM	494	CE2	PHE	A	94	9.519	57.188	36.033	1.00	44.45	A	C
ATOM	495	CZ	PHE	A	94	9.252	58.252	36.883	1.00	44.81	A	C
ATOM	496	C	PHE	A	94	7.360	59.136	30.660	1.00	50.93	A	C
ATOM	497	O	PHE	A	94	7.993	60.163	30.355	1.00	51.93	A	O
ATOM	498	N	SER	A	95	6.530	58.525	29.816	1.00	48.90	A	N
ATOM	499	CA	SER	A	95	6.327	59.028	28.466	1.00	46.53	A	C
ATOM	500	CB	SER	A	95	5.903	57.880	27.514	1.00	48.35	A	C
ATOM	501	OG	SER	A	95	4.571	57.415	27.721	1.00	49.63	A	O
ATOM	502	C	SER	A	95	5.314	60.179	28.425	1.00	44.26	A	C
ATOM	503	O	SER	A	95	5.326	60.994	27.499	1.00	43.40	A	O
ATOM	504	N	GLY	A	96	4.461	60.255	29.443	1.00	43.04	A	N
ATOM	505	CA	GLY	A	96	3.461	61.304	29.499	1.00	41.72	A	C
ATOM	506	C	GLY	A	96	3.980	62.734	29.472	1.00	40.99	A	C
ATOM	507	O	GLY	A	96	4.986	63.059	30.109	1.00	41.17	A	O
ATOM	508	N	ARG	A	97	3.285	63.591	28.724	1.00	40.18	A	N
ATOM	509	CA	ARG	A	97	3.662	64.995	28.609	1.00	38.80	A	C
ATOM	510	CB	ARG	A	97	3.307	65.548	27.233	1.00	37.71	A	C
ATOM	511	CG	ARG	A	97	3.517	67.039	27.132	1.00	34.48	A	C
ATOM	512	CD	ARG	A	97	4.960	67.390	27.350	1.00	33.26	A	C
ATOM	513	NE	ARG	A	97	5.794	66.922	26.235	1.00	31.66	A	N
ATOM	514	CZ	ARG	A	97	7.106	66.714	26.321	1.00	28.55	A	C
ATOM	515	NH1	ARG	A	97	7.782	66.299	25.277	1.00	26.42	A	N
ATOM	516	NH2	ARG	A	97	7.746	66.908	27.459	1.00	29.19	A	N
ATOM	517	C	ARG	A	97	2.973	65.846	29.657	1.00	40.80	A	C
ATOM	518	O	ARG	A	97	1.755	65.993	29.650	1.00	41.00	A	O
ATOM	519	N	GLY	A	98	3.762	66.427	30.549	1.00	43.10	A	N
ATOM	520	CA	GLY	A	98	3.197	67.266	31.590	1.00	45.40	A	C
ATOM	521	C	GLY	A	98	2.673	68.601	31.090	1.00	47.67	A	C
ATOM	522	O	GLY	A	98	3.416	69.401	30.509	1.00	47.93	A	O

204/514

Figure 3

ATOM	523	N	ILE	A	99	1.391	68.860	31.322	1.00	50.12	A	N
ATOM	524	CA	ILE	A	99	0.838	70.125	30.880	1.00	51.67	A	C
ATOM	525	CB	ILE	A	99	-0.519	69.951	30.215	1.00	52.83	A	C
ATOM	526	CG2	ILE	A	99	-1.100	71.338	29.874	1.00	53.38	A	C
ATOM	527	CG1	ILE	A	99	-0.353	69.022	28.999	1.00	54.47	A	C
ATOM	528	CD1	ILE	A	99	-1.600	68.785	28.173	1.00	55.15	A	C
ATOM	529	C	ILE	A	99	0.680	71.107	32.005	1.00	52.11	A	C
ATOM	530	O	ILE	A	99	0.152	70.774	33.066	1.00	52.60	A	O
ATOM	531	N	PHE	A	100	1.180	72.315	31.775	1.00	53.99	A	N
ATOM	532	CA	PHE	A	100	1.069	73.385	32.760	1.00	54.57	A	C
ATOM	533	CB	PHE	A	100	2.360	74.218	32.828	1.00	54.74	A	C
ATOM	534	CG	PHE	A	100	3.299	73.827	33.955	1.00	53.60	A	C
ATOM	535	CD1	PHE	A	100	4.576	74.374	34.025	1.00	54.03	A	C
ATOM	536	CD2	PHE	A	100	2.913	72.913	34.934	1.00	54.36	A	C
ATOM	537	CE1	PHE	A	100	5.457	74.017	35.048	1.00	54.83	A	C
ATOM	538	CE2	PHE	A	100	3.788	72.549	35.964	1.00	53.34	A	C
ATOM	539	CZ	PHE	A	100	5.060	73.100	36.019	1.00	53.82	A	C
ATOM	540	C	PHE	A	100	-0.100	74.257	32.307	1.00	56.49	A	C
ATOM	541	O	PHE	A	100	-0.400	74.347	31.107	1.00	57.42	A	O
ATOM	542	N	PRO	A	101	-0.783	74.897	33.262	1.00	57.01	A	N
ATOM	543	CD	PRO	A	101	-0.464	74.863	34.701	1.00	57.27	A	C
ATOM	544	CA	PRO	A	101	-1.928	75.768	33.009	1.00	55.78	A	C
ATOM	545	CB	PRO	A	101	-2.025	76.558	34.300	1.00	56.34	A	C
ATOM	546	CG	PRO	A	101	-1.668	75.520	35.312	1.00	56.97	A	C
ATOM	547	C	PRO	A	101	-1.819	76.674	31.782	1.00	55.34	A	C
ATOM	548	O	PRO	A	101	-2.558	76.498	30.814	1.00	56.59	A	O
ATOM	549	N	LEU	A	102	-0.900	77.637	31.827	1.00	53.85	A	N
ATOM	550	CA	LEU	A	102	-0.734	78.589	30.730	1.00	51.55	A	C
ATOM	551	CB	LEU	A	102	0.587	79.349	30.862	1.00	49.92	A	C
ATOM	552	CG	LEU	A	102	0.831	80.460	29.822	1.00	48.55	A	C
ATOM	553	CD1	LEU	A	102	1.378	79.869	28.552	1.00	49.07	A	C
ATOM	554	CD2	LEU	A	102	-0.449	81.231	29.560	1.00	47.71	A	C
ATOM	555	C	LEU	A	102	-0.806	77.933	29.367	1.00	52.45	A	C
ATOM	556	O	LEU	A	102	-1.404	78.476	28.435	1.00	51.65	A	O
ATOM	557	N	ALA	A	103	-0.190	76.764	29.252	1.00	53.76	A	N
ATOM	558	CA	ALA	A	103	-0.197	76.045	27.995	1.00	56.20	A	C
ATOM	559	CB	ALA	A	103	0.815	74.919	28.029	1.00	56.29	A	C
ATOM	560	C	ALA	A	103	-1.589	75.494	27.758	1.00	57.97	A	C
ATOM	561	O	ALA	A	103	-2.199	75.736	26.711	1.00	58.83	A	O
ATOM	562	N	GLU	A	104	-2.111	74.771	28.741	1.00	60.01	A	N
ATOM	563	CA	GLU	A	104	-3.436	74.186	28.591	1.00	62.56	A	C
ATOM	564	CB	GLU	A	104	-3.977	73.721	29.936	1.00	63.71	A	C
ATOM	565	CG	GLU	A	104	-5.197	72.843	29.764	1.00	67.55	A	C
ATOM	566	CD	GLU	A	104	-5.349	71.834	30.883	1.00	69.92	A	C
ATOM	567	OE1	GLU	A	104	-5.602	72.265	32.036	1.00	70.38	A	O
ATOM	568	OE2	GLU	A	104	-5.193	70.608	30.614	1.00	71.95	A	O
ATOM	569	C	GLU	A	104	-4.444	75.130	27.940	1.00	63.49	A	C
ATOM	570	O	GLU	A	104	-5.198	74.728	27.041	1.00	63.55	A	O
ATOM	571	N	ARG	A	105	-4.430	76.387	28.385	1.00	64.98	A	N
ATOM	572	CA	ARG	A	105	-5.338	77.422	27.879	1.00	65.81	A	C
ATOM	573	CB	ARG	A	105	-5.512	78.529	28.937	1.00	68.02	A	C
ATOM	574	CG	ARG	A	105	-6.359	78.138	30.170	1.00	71.57	A	C
ATOM	575	CD	ARG	A	105	-7.754	77.654	29.753	1.00	75.10	A	C
ATOM	576	NE	ARG	A	105	-8.499	78.670	29.007	1.00	77.67	A	N
ATOM	577	CZ	ARG	A	105	-9.053	79.749	29.554	1.00	78.39	A	C
ATOM	578	NH1	ARG	A	105	-9.705	80.625	28.789	1.00	78.33	A	N
ATOM	579	NH2	ARG	A	105	-8.965	79.945	30.866	1.00	78.51	A	N
ATOM	580	C	ARG	A	105	-4.914	78.055	26.542	1.00	64.92	A	C
ATOM	581	O	ARG	A	105	-5.742	78.653	25.842	1.00	64.40	A	O
ATOM	582	N	ALA	A	106	-3.636	77.929	26.188	1.00	64.01	A	N
ATOM	583	CA	ALA	A	106	-3.147	78.506	24.940	1.00	63.64	A	C
ATOM	584	CB	ALA	A	106	-1.797	79.189	25.173	1.00	61.31	A	C
ATOM	585	C	ALA	A	106	-3.042	77.501	23.793	1.00	64.55	A	C
ATOM	586	O	ALA	A	106	-2.676	77.869	22.674	1.00	64.92	A	O
ATOM	587	N	ASN	A	107	-3.383	76.241	24.055	1.00	65.27	A	N
ATOM	588	CA	ASN	A	107	-3.304	75.206	23.019	1.00	66.86	A	C
ATOM	589	CB	ASN	A	107	-2.306	74.111	23.449	1.00	66.71	A	C
ATOM	590	CG	ASN	A	107	-0.847	74.551	23.305	1.00	67.41	A	C
ATOM	591	OD1	ASN	A	107	-0.370	75.426	24.033	1.00	68.42	A	O
ATOM	592	ND2	ASN	A	107	-0.135	73.939	22.364	1.00	66.90	A	N
ATOM	593	C	ASN	A	107	-4.640	74.561	22.597	1.00	67.32	A	C
ATOM	594	O	ASN	A	107	-5.129	73.611	23.230	1.00	68.34	A	O
ATOM	595	N	ARG	A	108	-5.232	75.080	21.525	1.00	66.70	A	N
ATOM	596	CA	ARG	A	108	-6.486	74.520	21.009	1.00	66.66	A	C
ATOM	597	CB	ARG	A	108	-7.288	75.585	20.225	1.00	67.92	A	C

Figure 3

ATOM	598	CG	ARG	A	108	-8.648	75.974	20.842	1.00	68.68	A	C
ATOM	599	CD	ARG	A	108	-8.505	76.415	22.303	1.00	70.34	A	C
ATOM	600	NE	ARG	A	108	-9.484	77.419	22.706	1.00	71.08	A	N
ATOM	601	CZ	ARG	A	108	-9.690	78.567	22.064	1.00	72.12	A	C
ATOM	602	NH1	ARG	A	108	-8.988	78.855	20.973	1.00	71.66	A	N
ATOM	603	NH2	ARG	A	108	-10.580	79.445	22.525	1.00	73.33	A	N
ATOM	604	C	ARG	A	108	-6.065	73.398	20.069	1.00	65.67	A	C
ATOM	605	O	ARG	A	108	-5.709	73.632	18.913	1.00	66.62	A	O
ATOM	606	N	GLY	A	109	-6.078	72.178	20.574	1.00	64.18	A	N
ATOM	607	CA	GLY	A	109	-5.679	71.075	19.731	1.00	62.65	A	C
ATOM	608	C	GLY	A	109	-4.340	70.481	20.106	1.00	61.70	A	C
ATOM	609	O	GLY	A	109	-3.367	71.179	20.404	1.00	60.91	A	O
ATOM	610	N	PHE	A	110	-4.304	69.158	20.074	1.00	61.91	A	N
ATOM	611	CA	PHE	A	110	-3.114	68.412	20.420	1.00	61.62	A	C
ATOM	612	CB	PHE	A	110	-3.491	67.348	21.441	1.00	63.59	A	C
ATOM	613	CG	PHE	A	110	-4.222	67.911	22.618	1.00	67.69	A	C
ATOM	614	CD1	PHE	A	110	-3.559	68.737	23.524	1.00	69.31	A	C
ATOM	615	CD2	PHE	A	110	-5.587	67.665	22.799	1.00	69.09	A	C
ATOM	616	CE1	PHE	A	110	-4.237	69.318	24.601	1.00	71.55	A	C
ATOM	617	CE2	PHE	A	110	-6.290	68.236	23.871	1.00	71.42	A	C
ATOM	618	CZ	PHE	A	110	-5.615	69.067	24.779	1.00	72.54	A	C
ATOM	619	C	PHE	A	110	-2.466	67.804	19.187	1.00	60.20	A	C
ATOM	620	O	PHE	A	110	-3.066	66.996	18.468	1.00	59.49	A	O
ATOM	621	N	GLY	A	111	-1.234	68.239	18.940	1.00	59.00	A	N
ATOM	622	CA	GLY	A	111	-0.469	67.748	17.812	1.00	55.64	A	C
ATOM	623	C	GLY	A	111	0.523	66.707	18.285	1.00	53.15	A	C
ATOM	624	O	GLY	A	111	0.148	65.580	18.591	1.00	53.63	A	O
ATOM	625	N	ILE	A	112	1.788	67.082	18.386	1.00	50.01	A	N
ATOM	626	CA	ILE	A	112	2.792	66.120	18.809	1.00	46.17	A	C
ATOM	627	CB	ILE	A	112	3.828	65.914	17.688	1.00	45.10	A	C
ATOM	628	CG2	ILE	A	112	4.252	67.246	17.155	1.00	47.06	A	C
ATOM	629	CG1	ILE	A	112	5.053	65.165	18.193	1.00	43.92	A	C
ATOM	630	CD1	ILE	A	112	6.072	64.899	17.083	1.00	42.03	A	C
ATOM	631	C	ILE	A	112	3.490	66.513	20.099	1.00	45.16	A	C
ATOM	632	O	ILE	A	112	3.840	65.647	20.893	1.00	46.54	A	O
ATOM	633	N	VAL	A	113	3.671	67.813	20.324	1.00	43.45	A	N
ATOM	634	CA	VAL	A	113	4.356	68.280	21.530	1.00	40.88	A	C
ATOM	635	CB	VAL	A	113	4.750	69.762	21.428	1.00	40.29	A	C
ATOM	636	CG1	VAL	A	113	5.381	70.222	22.727	1.00	39.88	A	C
ATOM	637	CG2	VAL	A	113	5.712	69.966	20.287	1.00	40.39	A	C
ATOM	638	C	VAL	A	113	3.541	68.116	22.794	1.00	40.87	A	C
ATOM	639	O	VAL	A	113	4.077	67.765	23.845	1.00	40.88	A	O
ATOM	640	N	PHE	A	114	2.247	68.379	22.700	1.00	41.12	A	N
ATOM	641	CA	PHE	A	114	1.406	68.280	23.873	1.00	41.15	A	C
ATOM	642	CB	PHE	A	114	0.711	69.608	24.110	1.00	40.43	A	C
ATOM	643	CG	PHE	A	114	1.649	70.708	24.456	1.00	38.73	A	C
ATOM	644	CD1	PHE	A	114	1.879	71.759	23.575	1.00	39.54	A	C
ATOM	645	CD2	PHE	A	114	2.314	70.692	25.670	1.00	39.98	A	C
ATOM	646	CE1	PHE	A	114	2.763	72.786	23.907	1.00	40.50	A	C
ATOM	647	CE2	PHE	A	114	3.196	71.707	26.016	1.00	41.24	A	C
ATOM	648	CZ	PHE	A	114	3.423	72.758	25.135	1.00	41.36	A	C
ATOM	649	C	PHE	A	114	0.391	67.181	23.764	1.00	42.16	A	C
ATOM	650	O	PHE	A	114	-0.712	67.282	24.301	1.00	43.27	A	O
ATOM	651	N	SER	A	115	0.759	66.112	23.077	1.00	43.94	A	N
ATOM	652	CA	SER	A	115	-0.170	65.005	22.903	1.00	44.60	A	C
ATOM	653	CB	SER	A	115	0.009	64.402	21.514	1.00	45.90	A	C
ATOM	654	OG	SER	A	115	-1.253	64.237	20.876	1.00	47.95	A	O
ATOM	655	C	SER	A	115	0.033	63.944	23.959	1.00	44.92	A	C
ATOM	656	O	SER	A	115	0.716	64.158	24.951	1.00	45.47	A	O
ATOM	657	N	ASN	A	116	-0.589	62.799	23.761	1.00	46.66	A	N
ATOM	658	CA	ASN	A	116	-0.432	61.723	24.713	1.00	48.98	A	C
ATOM	659	CB	ASN	A	116	-0.912	62.157	26.106	1.00	48.61	A	C
ATOM	660	CG	ASN	A	116	0.063	61.762	27.203	1.00	49.67	A	C
ATOM	661	OD1	ASN	A	116	0.608	60.649	27.191	1.00	50.36	A	O
ATOM	662	ND2	ASN	A	116	0.280	62.659	28.163	1.00	49.37	A	N
ATOM	663	C	ASN	A	116	-1.174	60.469	24.263	1.00	50.94	A	C
ATOM	664	O	ASN	A	116	-2.086	60.529	23.426	1.00	51.74	A	O
ATOM	665	N	GLY	A	117	-0.752	59.331	24.816	1.00	52.04	A	N
ATOM	666	CA	GLY	A	117	-1.355	58.050	24.490	1.00	52.95	A	C
ATOM	667	C	GLY	A	117	-1.449	57.782	22.999	1.00	53.98	A	C
ATOM	668	O	GLY	A	117	-0.733	58.384	22.200	1.00	53.90	A	O
ATOM	669	N	LYS	A	118	-2.336	56.869	22.624	1.00	55.26	A	N
ATOM	670	CA	LYS	A	118	-2.524	56.525	21.224	1.00	56.95	A	C
ATOM	671	CB	LYS	A	118	-3.923	55.924	20.989	1.00	59.52	A	C
ATOM	672	CG	LYS	A	118	-5.030	56.370	21.988	1.00	63.68	A	C

206/514

Figure 3

ATOM	673	CD	LYS	A	118	-5.280	57.896	22.032	1.00	62.93	A	C
ATOM	674	CE	LYS	A	118	-6.592	58.222	22.740	1.00	61.69	A	C
ATOM	675	NZ	LYS	A	118	-6.749	57.487	24.034	1.00	60.34	A	N
ATOM	676	C	LYS	A	118	-2.302	57.689	20.262	1.00	55.61	A	C
ATOM	677	O	LYS	A	118	-1.678	57.503	19.221	1.00	56.68	A	O
ATOM	678	N	LYS	A	119	-2.787	58.887	20.580	1.00	54.04	A	N
ATOM	679	CA	LYS	A	119	-2.580	59.987	19.639	1.00	53.62	A	C
ATOM	680	CB	LYS	A	119	-3.290	61.268	20.091	1.00	52.23	A	C
ATOM	681	CG	LYS	A	119	-3.499	62.288	18.965	1.00	51.72	A	C
ATOM	682	CD	LYS	A	119	-4.229	63.522	19.488	1.00	53.72	A	C
ATOM	683	CE	LYS	A	119	-4.920	64.329	18.388	1.00	54.82	A	C
ATOM	684	NZ	LYS	A	119	-6.176	63.685	17.890	1.00	56.25	A	N
ATOM	685	C	LYS	A	119	-1.093	60.256	19.483	1.00	53.84	A	C
ATOM	686	O	LYS	A	119	-0.554	60.190	18.379	1.00	53.58	A	O
ATOM	687	N	TRP	A	120	-0.429	60.547	20.596	1.00	53.05	A	N
ATOM	688	CA	TRP	A	120	1.001	60.827	20.574	1.00	52.26	A	C
ATOM	689	CB	TRP	A	120	1.496	61.115	21.992	1.00	50.59	A	C
ATOM	690	CG	TRP	A	120	2.980	61.155	22.122	1.00	47.26	A	C
ATOM	691	CD2	TRP	A	120	3.807	60.134	22.676	1.00	45.64	A	C
ATOM	692	CE2	TRP	A	120	5.142	60.576	22.581	1.00	45.36	A	C
ATOM	693	CE3	TRP	A	120	3.549	58.888	23.259	1.00	45.88	A	C
ATOM	694	CD1	TRP	A	120	3.819	62.148	21.714	1.00	47.13	A	C
ATOM	695	NE1	TRP	A	120	5.123	61.811	21.984	1.00	45.94	A	N
ATOM	696	C22	TRP	A	120	6.217	59.816	23.027	1.00	45.91	A	C
ATOM	697	C23	TRP	A	120	4.612	58.131	23.704	1.00	46.70	A	C
ATOM	698	CH2	TRP	A	120	5.936	58.599	23.591	1.00	47.20	A	C
ATOM	699	C	TRP	A	120	1.791	59.668	19.964	1.00	53.49	A	C
ATOM	700	O	TRP	A	120	2.570	59.868	19.033	1.00	53.53	A	O
ATOM	701	N	LYS	A	121	1.584	58.462	20.485	1.00	54.71	A	N
ATOM	702	CA	LYS	A	121	2.288	57.292	19.984	1.00	55.38	A	C
ATOM	703	CB	LYS	A	121	1.696	56.004	20.575	1.00	57.03	A	C
ATOM	704	CG	LYS	A	121	1.891	55.891	22.095	1.00	61.34	A	C
ATOM	705	CD	LYS	A	121	1.502	54.516	22.660	1.00	63.58	A	C
ATOM	706	CE	LYS	A	121	2.656	53.502	22.624	1.00	65.58	A	C
ATOM	707	NZ	LYS	A	121	3.194	53.222	21.257	1.00	67.13	A	N
ATOM	708	C	LYS	A	121	2.278	57.233	18.466	1.00	55.28	A	C
ATOM	709	O	LYS	A	121	3.337	57.136	17.831	1.00	56.27	A	O
ATOM	710	N	GLU	A	122	1.099	57.318	17.863	1.00	55.99	A	N
ATOM	711	CA	GLU	A	122	1.015	57.255	16.404	1.00	54.95	A	C
ATOM	712	CB	GLU	A	122	-0.430	56.984	15.970	1.00	57.42	A	C
ATOM	713	CG	GLU	A	122	-1.000	55.665	16.488	1.00	60.84	A	C
ATOM	714	CD	GLU	A	122	-2.368	55.336	15.901	1.00	63.26	A	C
ATOM	715	OE1	GLU	A	122	-3.037	54.418	16.432	1.00	64.52	A	O
ATOM	716	OE2	GLU	A	122	-2.773	55.985	14.905	1.00	64.00	A	O
ATOM	717	C	GLU	A	122	1.555	58.476	15.664	1.00	52.63	A	C
ATOM	718	O	GLU	A	122	2.257	58.315	14.672	1.00	53.39	A	O
ATOM	719	N	ILE	A	123	1.245	59.686	16.131	1.00	49.73	A	N
ATOM	720	CA	ILE	A	123	1.729	60.875	15.436	1.00	47.08	A	C
ATOM	721	CB	ILE	A	123	1.092	62.171	15.946	1.00	45.94	A	C
ATOM	722	CG2	ILE	A	123	1.542	63.336	15.082	1.00	43.42	A	C
ATOM	723	CG1	ILE	A	123	-0.425	62.084	15.874	1.00	47.34	A	C
ATOM	724	CD1	ILE	A	123	-1.106	63.187	16.653	1.00	49.76	A	C
ATOM	725	C	ILE	A	123	3.227	61.048	15.549	1.00	46.72	A	C
ATOM	726	O	ILE	A	123	3.842	61.669	14.687	1.00	46.16	A	O
ATOM	727	N	ARG	A	124	3.819	60.526	16.615	1.00	46.40	A	N
ATOM	728	CA	ARG	A	124	5.265	60.651	16.773	1.00	47.29	A	C
ATOM	729	CB	ARG	A	124	5.688	60.386	18.214	1.00	46.85	A	C
ATOM	730	CG	ARG	A	124	7.199	60.244	18.373	1.00	46.37	A	C
ATOM	731	CD	ARG	A	124	7.566	59.631	19.725	1.00	46.85	A	C
ATOM	732	NE	ARG	A	124	8.996	59.308	19.835	1.00	45.97	A	N
ATOM	733	CZ	ARG	A	124	9.963	60.197	20.051	1.00	45.94	A	C
ATOM	734	NH1	ARG	A	124	9.677	61.487	20.189	1.00	43.39	A	N
ATOM	735	NH2	ARG	A	124	11.221	59.790	20.132	1.00	45.84	A	N
ATOM	736	C	ARG	A	124	5.942	59.633	15.877	1.00	49.51	A	C
ATOM	737	O	ARG	A	124	6.842	59.969	15.106	1.00	49.15	A	O
ATOM	738	N	ARG	A	125	5.491	58.382	15.991	1.00	51.76	A	N
ATOM	739	CA	ARG	A	125	6.046	57.288	15.204	1.00	53.00	A	C
ATOM	740	CB	ARG	A	125	5.192	56.018	15.337	1.00	56.37	A	C
ATOM	741	CG	ARG	A	125	5.823	54.806	14.656	1.00	61.99	A	C
ATOM	742	CD	ARG	A	125	5.194	53.473	15.091	1.00	68.57	A	C
ATOM	743	NE	ARG	A	125	5.950	52.327	14.563	1.00	76.25	A	N
ATOM	744	CZ	ARG	A	125	5.697	51.048	14.850	1.00	79.27	A	C
ATOM	745	NH1	ARG	A	125	4.695	50.740	15.667	1.00	80.94	A	N
ATOM	746	NH2	ARG	A	125	6.446	50.080	14.322	1.00	80.01	A	N
ATOM	747	C	ARG	A	125	6.143	57.688	13.744	1.00	51.96	A	C

Figure 3

ATOM	748	O	ARG	A	125	7.197	57.543	13.118	1.00	52.91	A	O
ATOM	749	N	PHE	A	126	5.041	58.193	13.200	1.00	50.69	A	N
ATOM	750	CA	PHE	A	126	5.015	58.614	11.805	1.00	48.94	A	C
ATOM	751	CB	PHE	A	126	3.587	59.012	11.387	1.00	47.35	A	C
ATOM	752	CG	PHE	A	126	3.525	59.819	10.114	1.00	45.70	A	C
ATOM	753	CD1	PHE	A	126	3.540	61.211	10.156	1.00	47.01	A	C
ATOM	754	CD2	PHE	A	126	3.468	59.189	8.872	1.00	47.03	A	C
ATOM	755	CE1	PHE	A	126	3.496	61.970	8.983	1.00	47.02	A	C
ATOM	756	CE2	PHE	A	126	3.425	59.937	7.687	1.00	47.24	A	C
ATOM	757	CZ	PHE	A	126	3.438	61.333	7.742	1.00	46.60	A	C
ATOM	758	C	PHE	A	126	5.986	59.766	11.556	1.00	48.53	A	C
ATOM	759	O	PHE	A	126	6.789	59.711	10.634	1.00	49.24	A	O
ATOM	760	N	SER	A	127	5.939	60.793	12.391	1.00	47.50	A	N
ATOM	761	CA	SER	A	127	6.813	61.938	12.195	1.00	47.21	A	C
ATOM	762	CB	SER	A	127	6.512	63.002	13.234	1.00	46.53	A	C
ATOM	763	OG	SER	A	127	5.138	63.312	13.189	1.00	45.60	A	O
ATOM	764	C	SER	A	127	8.286	61.585	12.237	1.00	47.64	A	C
ATOM	765	O	SER	A	127	9.089	62.124	11.465	1.00	47.68	A	O
ATOM	766	N	LEU	A	128	8.651	60.696	13.149	1.00	48.76	A	N
ATOM	767	CA	LEU	A	128	10.041	60.294	13.254	1.00	50.75	A	C
ATOM	768	CB	LEU	A	128	10.241	59.351	14.433	1.00	50.04	A	C
ATOM	769	CG	LEU	A	128	10.783	60.012	15.693	1.00	49.89	A	C
ATOM	770	CD1	LEU	A	128	10.933	58.949	16.768	1.00	48.85	A	C
ATOM	771	CD2	LEU	A	128	12.132	60.681	15.385	1.00	48.87	A	C
ATOM	772	C	LEU	A	128	10.459	59.598	11.977	1.00	52.65	A	C
ATOM	773	O	LEU	A	128	11.624	59.651	11.573	1.00	53.44	A	O
ATOM	774	N	MET	A	129	9.493	58.948	11.343	1.00	54.33	A	N
ATOM	775	CA	MET	A	129	9.733	58.220	10.107	1.00	56.49	A	C
ATOM	776	CB	MET	A	129	8.466	57.467	9.690	1.00	60.29	A	C
ATOM	777	CG	MET	A	129	8.715	56.294	8.765	1.00	66.24	A	C
ATOM	778	SD	MET	A	129	8.963	54.773	9.729	1.00	73.85	A	S
ATOM	779	CE	MET	A	129	7.280	54.066	9.685	1.00	72.71	A	C
ATOM	780	C	MET	A	129	10.102	59.198	9.006	1.00	55.27	A	C
ATOM	781	O	MET	A	129	11.213	59.178	8.469	1.00	55.37	A	O
ATOM	782	N	THR	A	130	9.139	60.053	8.685	1.00	53.15	A	N
ATOM	783	CA	THR	A	130	9.278	61.047	7.639	1.00	52.60	A	C
ATOM	784	CB	THR	A	130	7.989	61.854	7.516	1.00	53.06	A	C
ATOM	785	OG1	THR	A	130	7.857	62.707	8.656	1.00	55.21	A	O
ATOM	786	CG2	THR	A	130	6.797	60.920	7.470	1.00	54.34	A	C
ATOM	787	C	THR	A	130	10.433	62.003	7.861	1.00	51.51	A	C
ATOM	788	O	THR	A	130	10.807	62.753	6.958	1.00	51.87	A	O
ATOM	789	N	LEU	A	131	11.006	61.987	9.055	1.00	51.13	A	N
ATOM	790	CA	LEU	A	131	12.116	62.888	9.329	1.00	50.41	A	C
ATOM	791	CB	LEU	A	131	12.001	63.458	10.741	1.00	48.79	A	C
ATOM	792	CG	LEU	A	131	10.824	64.412	10.883	1.00	47.95	A	C
ATOM	793	CD1	LEU	A	131	10.679	64.812	12.324	1.00	47.29	A	C
ATOM	794	CD2	LEU	A	131	11.012	65.630	9.984	1.00	46.13	A	C
ATOM	795	C	LEU	A	131	13.478	62.228	9.133	1.00	51.03	A	C
ATOM	796	O	LEU	A	131	14.500	62.831	9.442	1.00	51.04	A	O
ATOM	797	N	ARG	A	132	13.477	60.997	8.627	1.00	52.18	A	N
ATOM	798	CA	ARG	A	132	14.715	60.298	8.360	1.00	53.68	A	C
ATOM	799	CB	ARG	A	132	14.462	58.827	8.047	1.00	56.41	A	C
ATOM	800	CG	ARG	A	132	14.336	57.947	9.279	1.00	61.85	A	C
ATOM	801	CD	ARG	A	132	14.605	56.495	8.899	1.00	65.64	A	C
ATOM	802	NE	ARG	A	132	13.571	55.970	8.011	1.00	68.94	A	N
ATOM	803	CZ	ARG	A	132	12.537	55.243	8.417	1.00	70.21	A	C
ATOM	804	NH1	ARG	A	132	12.399	54.945	9.707	1.00	69.76	A	N
ATOM	805	NH2	ARG	A	132	11.649	54.818	7.527	1.00	70.24	A	N
ATOM	806	C	ARG	A	132	15.375	60.970	7.161	1.00	53.03	A	C
ATOM	807	O	ARG	A	132	14.683	61.451	6.263	1.00	53.16	A	O
ATOM	808	N	ASN	A	133	16.706	61.005	7.143	1.00	52.86	A	N
ATOM	809	CA	ASN	A	133	17.437	61.652	6.061	1.00	52.46	A	C
ATOM	810	CB	ASN	A	133	18.885	61.181	6.057	1.00	52.47	A	C
ATOM	811	CG	ASN	A	133	19.786	62.103	5.253	1.00	54.12	A	C
ATOM	812	OD1	ASN	A	133	20.997	61.862	5.120	1.00	56.86	A	O
ATOM	813	ND2	ASN	A	133	19.201	63.178	4.713	1.00	52.79	A	N
ATOM	814	C	ASN	A	133	16.818	61.459	4.674	1.00	53.41	A	C
ATOM	815	O	ASN	A	133	16.734	62.406	3.886	1.00	52.19	A	O
ATOM	816	N	PHE	A	134	16.391	60.233	4.382	1.00	53.82	A	N
ATOM	817	CA	PHE	A	134	15.770	59.888	3.095	1.00	54.83	A	C
ATOM	818	CB	PHE	A	134	16.616	58.851	2.357	1.00	54.80	A	C
ATOM	819	CG	PHE	A	134	17.854	59.405	1.723	1.00	55.30	A	C
ATOM	820	CD1	PHE	A	134	17.800	59.999	0.463	1.00	55.31	A	C
ATOM	821	CD2	PHE	A	134	19.083	59.309	2.371	1.00	55.01	A	C
ATOM	822	CE1	PHE	A	134	18.958	60.490	-0.150	1.00	56.68	A	C

208/514

Figure 3

ATOM	823	CE2	PHE	A	134	20.252	59.795	1.774	1.00	55.57	A	C
ATOM	824	CZ	PHE	A	134	20.191	60.387	0.507	1.00	56.66	A	C
ATOM	825	C	PHE	A	134	14.394	59.285	3.330	1.00	55.94	A	C
ATOM	826	O	PHE	A	134	14.047	58.269	2.726	1.00	56.81	A	O
ATOM	827	N	GLY	A	135	13.603	59.907	4.198	1.00	57.19	A	N
ATOM	828	CA	GLY	A	135	12.282	59.367	4.496	1.00	58.28	A	C
ATOM	829	C	GLY	A	135	11.141	59.834	3.605	1.00	59.41	A	C
ATOM	830	O	GLY	A	135	10.062	59.245	3.626	1.00	59.06	A	O
ATOM	831	N	MET	A	136	11.376	60.885	2.822	1.00	61.71	A	N
ATOM	832	CA	MET	A	136	10.343	61.423	1.939	1.00	61.95	A	C
ATOM	833	CB	MET	A	136	9.583	62.558	2.641	1.00	62.26	A	C
ATOM	834	CG	MET	A	136	10.477	63.509	3.449	1.00	64.35	A	C
ATOM	835	SD	MET	A	136	9.631	64.862	4.365	1.00	67.28	A	S
ATOM	836	CE	MET	A	136	10.780	66.279	4.072	1.00	65.62	A	C
ATOM	837	C	MET	A	136	10.847	61.902	0.570	1.00	62.11	A	C
ATOM	838	O	MET	A	136	11.250	63.060	0.396	1.00	62.69	A	O
ATOM	839	N	GLY	A	137	10.814	61.000	-0.407	1.00	62.05	A	N
ATOM	840	CA	GLY	A	137	11.254	61.347	-1.748	1.00	60.87	A	C
ATOM	841	C	GLY	A	137	12.739	61.218	-1.942	1.00	59.89	A	C
ATOM	842	O	GLY	A	137	13.468	60.746	-1.065	1.00	59.86	A	O
ATOM	843	N	LYS	A	138	13.178	61.666	-3.112	1.00	59.01	A	N
ATOM	844	CA	LYS	A	138	14.582	61.611	-3.510	1.00	59.44	A	C
ATOM	845	CB	LYS	A	138	14.668	61.736	-5.047	1.00	60.84	A	C
ATOM	846	CG	LYS	A	138	13.691	60.780	-5.788	1.00	63.25	A	C
ATOM	847	CD	LYS	A	138	13.973	60.589	-7.300	1.00	65.75	A	C
ATOM	848	CE	LYS	A	138	13.685	61.828	-8.174	1.00	66.54	A	C
ATOM	849	NZ	LYS	A	138	13.917	61.535	-9.628	1.00	64.75	A	N
ATOM	850	C	LYS	A	138	15.410	62.698	-2.804	1.00	57.82	A	C
ATOM	851	O	LYS	A	138	16.578	62.493	-2.462	1.00	57.67	A	O
ATOM	852	N	ARG	A	139	14.782	63.847	-2.572	1.00	55.02	A	N
ATOM	853	CA	ARG	A	139	15.429	64.960	-1.890	1.00	51.66	A	C
ATOM	854	CB	ARG	A	139	14.560	66.203	-2.054	1.00	51.46	A	C
ATOM	855	CG	ARG	A	139	15.258	67.510	-1.836	1.00	50.47	A	C
ATOM	856	CD	ARG	A	139	14.307	68.630	-2.237	1.00	51.85	A	C
ATOM	857	NE	ARG	A	139	14.689	69.938	-1.699	1.00	51.62	A	N
ATOM	858	CZ	ARG	A	139	15.830	70.564	-1.968	1.00	51.12	A	C
ATOM	859	NH1	ARG	A	139	16.069	71.753	-1.423	1.00	50.99	A	N
ATOM	860	NH2	ARG	A	139	16.724	70.003	-2.782	1.00	51.46	A	N
ATOM	861	C	ARG	A	139	15.574	64.548	-0.421	1.00	50.71	A	C
ATOM	862	O	ARG	A	139	14.616	64.094	0.206	1.00	51.82	A	O
ATOM	863	N	SER	A	140	16.780	64.700	0.116	1.00	48.23	A	N
ATOM	864	CA	SER	A	140	17.092	64.302	1.495	1.00	46.32	A	C
ATOM	865	CB	SER	A	140	18.454	63.620	1.518	1.00	46.91	A	C
ATOM	866	OG	SER	A	140	19.467	64.552	1.145	1.00	45.77	A	O
ATOM	867	C	SER	A	140	17.146	65.437	2.499	1.00	44.11	A	C
ATOM	868	O	SER	A	140	17.453	66.573	2.147	1.00	44.81	A	O
ATOM	869	N	ILE	A	141	16.899	65.127	3.763	1.00	39.43	A	N
ATOM	870	CA	ILE	A	141	16.972	66.173	4.761	1.00	36.14	A	C
ATOM	871	CB	ILE	A	141	16.846	65.615	6.171	1.00	35.46	A	C
ATOM	872	CG2	ILE	A	141	16.778	66.748	7.166	1.00	35.87	A	C
ATOM	873	CG1	ILE	A	141	15.589	64.750	6.265	1.00	35.40	A	C
ATOM	874	CD1	ILE	A	141	14.303	65.509	6.083	1.00	32.73	A	C
ATOM	875	C	ILE	A	141	18.324	66.869	4.619	1.00	35.05	A	C
ATOM	876	O	ILE	A	141	18.391	68.091	4.516	1.00	34.41	A	O
ATOM	877	N	GLU	A	142	19.401	66.097	4.572	1.00	35.19	A	N
ATOM	878	CA	GLU	A	142	20.717	66.701	4.442	1.00	35.24	A	C
ATOM	879	CB	GLU	A	142	21.786	65.623	4.366	1.00	36.50	A	C
ATOM	880	CG	GLU	A	142	23.193	66.150	4.235	1.00	37.95	A	C
ATOM	881	CD	GLU	A	142	24.179	65.080	4.554	1.00	39.93	A	C
ATOM	882	OE1	GLU	A	142	23.713	63.974	4.928	1.00	42.29	A	O
ATOM	883	OE2	GLU	A	142	25.405	65.328	4.449	1.00	40.91	A	O
ATOM	884	C	GLU	A	142	20.844	67.629	3.240	1.00	34.76	A	C
ATOM	885	O	GLU	A	142	21.523	68.650	3.303	1.00	32.69	A	O
ATOM	886	N	ASP	A	143	20.206	67.274	2.134	1.00	38.34	A	N
ATOM	887	CA	ASP	A	143	20.282	68.124	0.949	1.00	41.74	A	C
ATOM	888	CB	ASP	A	143	19.589	67.468	-0.249	1.00	49.17	A	C
ATOM	889	CG	ASP	A	143	20.569	67.079	-1.345	1.00	56.20	A	C
ATOM	890	OD1	ASP	A	143	21.519	67.886	-1.632	1.00	57.48	A	O
ATOM	891	OD2	ASP	A	143	20.378	65.977	-1.941	1.00	60.62	A	O
ATOM	892	C	ASP	A	143	19.624	69.473	1.212	1.00	40.91	A	C
ATOM	893	O	ASP	A	143	20.105	70.505	0.742	1.00	41.54	A	O
ATOM	894	N	ARG	A	144	18.504	69.449	1.935	1.00	38.77	A	N
ATOM	895	CA	ARG	A	144	17.757	70.662	2.248	1.00	34.57	A	C
ATOM	896	CB	ARG	A	144	16.439	70.284	2.944	1.00	35.52	A	C
ATOM	897	CG	ARG	A	144	15.513	69.358	2.105	1.00	37.69	A	C

209/514

Figure 3

ATOM	898	CD	ARG	A	144	14.346	68.754	2.920	1.00	39.22	A	C
ATOM	899	NE	ARG	A	144	13.484	67.788	2.206	1.00	40.29	A	N
ATOM	900	CZ	ARG	A	144	12.589	68.103	1.270	1.00	42.04	A	C
ATOM	901	NH1	ARG	A	144	12.419	69.365	0.900	1.00	42.00	A	N
ATOM	902	NH2	ARG	A	144	11.834	67.157	0.730	1.00	43.65	A	N
ATOM	903	C	ARG	A	144	18.601	71.559	3.136	1.00	31.88	A	C
ATOM	904	O	ARG	A	144	18.775	72.751	2.871	1.00	32.56	A	O
ATOM	905	N	VAL	A	145	19.135	70.969	4.195	1.00	28.18	A	N
ATOM	906	CA	VAL	A	145	19.948	71.736	5.105	1.00	25.12	A	C
ATOM	907	CB	VAL	A	145	20.301	70.942	6.327	1.00	21.93	A	C
ATOM	908	CG1	VAL	A	145	20.945	71.843	7.336	1.00	20.72	A	C
ATOM	909	CG2	VAL	A	145	19.062	70.300	6.886	1.00	18.15	A	C
ATOM	910	C	VAL	A	145	21.228	72.215	4.448	1.00	26.85	A	C
ATOM	911	O	VAL	A	145	21.723	73.292	4.771	1.00	25.77	A	O
ATOM	912	N	GLN	A	146	21.777	71.440	3.523	1.00	28.19	A	N
ATOM	913	CA	GLN	A	146	22.998	71.894	2.880	1.00	30.34	A	C
ATOM	914	CB	GLN	A	146	23.584	70.824	1.975	1.00	33.44	A	C
ATOM	915	CG	GLN	A	146	24.412	69.826	2.727	1.00	39.62	A	C
ATOM	916	CD	GLN	A	146	25.155	68.889	1.813	1.00	41.56	A	C
ATOM	917	OE1	GLN	A	146	26.042	69.313	1.073	1.00	44.50	A	O
ATOM	918	NE2	GLN	A	146	24.791	67.603	1.847	1.00	42.49	A	N
ATOM	919	C	GLN	A	146	22.732	73.136	2.080	1.00	31.05	A	C
ATOM	920	O	GLN	A	146	23.568	74.049	2.032	1.00	31.79	A	O
ATOM	921	N	GLU	A	147	21.563	73.164	1.441	1.00	32.42	A	N
ATOM	922	CA	GLU	A	147	21.140	74.311	0.621	1.00	32.86	A	C
ATOM	923	CB	GLU	A	147	19.804	74.032	-0.092	1.00	34.03	A	C
ATOM	924	CG	GLU	A	147	19.186	75.274	-0.757	1.00	37.05	A	C
ATOM	925	CD	GLU	A	147	17.964	74.969	-1.648	1.00	39.67	A	C
ATOM	926	OE1	GLU	A	147	17.090	74.149	-1.244	1.00	38.81	A	O
ATOM	927	OE2	GLU	A	147	17.866	75.570	-2.757	1.00	41.95	A	O
ATOM	928	C	GLU	A	147	20.948	75.507	1.520	1.00	32.21	A	C
ATOM	929	O	GLU	A	147	21.565	76.562	1.334	1.00	31.90	A	O
ATOM	930	N	GLU	A	148	20.081	75.326	2.506	1.00	30.56	A	N
ATOM	931	CA	GLU	A	148	19.825	76.409	3.404	1.00	30.26	A	C
ATOM	932	CB	GLU	A	148	18.950	75.959	4.560	1.00	30.82	A	C
ATOM	933	CG	GLU	A	148	18.282	77.128	5.262	1.00	32.47	A	C
ATOM	934	CD	GLU	A	148	17.477	77.992	4.304	1.00	33.27	A	C
ATOM	935	OE1	GLU	A	148	16.558	77.462	3.628	1.00	33.04	A	O
ATOM	936	OE2	GLU	A	148	17.761	79.208	4.232	1.00	33.87	A	O
ATOM	937	C	GLU	A	148	21.156	76.943	3.900	1.00	30.08	A	C
ATOM	938	O	GLU	A	148	21.297	78.129	4.154	1.00	27.82	A	O
ATOM	939	N	ALA	A	149	22.149	76.074	3.998	1.00	30.68	A	N
ATOM	940	CA	ALA	A	149	23.453	76.494	4.472	1.00	32.90	A	C
ATOM	941	CB	ALA	A	149	24.371	75.307	4.569	1.00	33.44	A	C
ATOM	942	C	ALA	A	149	24.143	77.596	3.673	1.00	35.08	A	C
ATOM	943	O	ALA	A	149	24.587	78.586	4.259	1.00	34.03	A	O
ATOM	944	N	ARG	A	150	24.269	77.444	2.353	1.00	40.00	A	N
ATOM	945	CA	ARG	A	150	24.971	78.485	1.591	1.00	43.69	A	C
ATOM	946	CB	ARG	A	150	25.358	78.012	0.176	1.00	45.27	A	C
ATOM	947	CG	ARG	A	150	24.230	77.584	-0.727	1.00	49.86	A	C
ATOM	948	CD	ARG	A	150	24.693	77.477	-2.210	1.00	53.95	A	C
ATOM	949	NE	ARG	A	150	23.574	77.170	-3.115	1.00	57.18	A	N
ATOM	950	CZ	ARG	A	150	23.012	75.967	-3.254	1.00	58.65	A	C
ATOM	951	NH1	ARG	A	150	21.984	75.807	-4.091	1.00	59.71	A	N
ATOM	952	NH2	ARG	A	150	23.489	74.922	-2.577	1.00	58.05	A	N
ATOM	953	C	ARG	A	150	24.190	79.778	1.529	1.00	44.37	A	C
ATOM	954	O	ARG	A	150	24.769	80.866	1.590	1.00	46.37	A	O
ATOM	955	N	CYS	A	151	22.873	79.662	1.423	1.00	44.25	A	N
ATOM	956	CA	CYS	A	151	22.017	80.842	1.391	1.00	43.91	A	C
ATOM	957	CB	CYS	A	151	20.549	80.423	1.450	1.00	44.80	A	C
ATOM	958	SG	CYS	A	151	19.981	79.577	-0.024	1.00	47.34	A	S
ATOM	959	C	CYS	A	151	22.357	81.669	2.611	1.00	43.93	A	C
ATOM	960	O	CYS	A	151	22.584	82.875	2.520	1.00	44.99	A	O
ATOM	961	N	LEU	A	152	22.385	80.988	3.751	1.00	43.13	A	N
ATOM	962	CA	LEU	A	152	22.695	81.605	5.032	1.00	42.19	A	C
ATOM	963	CB	LEU	A	152	22.900	80.512	6.086	1.00	39.89	A	C
ATOM	964	CG	LEU	A	152	22.804	80.859	7.571	1.00	37.78	A	C
ATOM	965	CD1	LEU	A	152	22.647	79.584	8.360	1.00	36.27	A	C
ATOM	966	CD2	LEU	A	152	24.020	81.624	8.030	1.00	36.00	A	C
ATOM	967	C	LEU	A	152	23.967	82.409	4.855	1.00	42.75	A	C
ATOM	968	O	LEU	A	152	24.066	83.550	5.294	1.00	43.20	A	O
ATOM	969	N	VAL	A	153	24.934	81.795	4.195	1.00	44.57	A	N
ATOM	970	CA	VAL	A	153	26.193	82.452	3.945	1.00	47.99	A	C
ATOM	971	CB	VAL	A	153	27.174	81.541	3.233	1.00	47.52	A	C
ATOM	972	CG1	VAL	A	153	28.483	82.274	2.985	1.00	48.31	A	C

Figure 3

ATOM	973	CG2	VAL	A	153	27.391	80.300	4.049	1.00	48.55	A	C
ATOM	974	C	VAL	A	153	25.942	83.623	3.030	1.00	50.15	A	C
ATOM	975	O	VAL	A	153	26.373	84.743	3.307	1.00	49.93	A	O
ATOM	976	N	GLU	A	154	25.259	83.364	1.925	1.00	53.22	A	N
ATOM	977	CA	GLU	A	154	24.982	84.430	0.988	1.00	56.64	A	C
ATOM	978	CB	GLU	A	154	23.926	83.984	-0.029	1.00	60.24	A	C
ATOM	979	CG	GLU	A	154	24.452	83.932	-1.492	1.00	66.93	A	C
ATOM	980	CD	GLU	A	154	25.530	82.854	-1.745	1.00	70.80	A	C
ATOM	981	OE1	GLU	A	154	26.644	82.932	-1.147	1.00	71.20	A	O
ATOM	982	OE2	GLU	A	154	25.257	81.934	-2.563	1.00	71.86	A	O
ATOM	983	C	GLU	A	154	24.526	85.657	1.780	1.00	56.94	A	C
ATOM	984	O	GLU	A	154	25.256	86.643	1.860	1.00	57.48	A	O
ATOM	985	N	GLU	A	155	23.357	85.584	2.409	1.00	56.10	A	N
ATOM	986	CA	GLU	A	155	22.852	86.708	3.187	1.00	54.85	A	C
ATOM	987	CB	GLU	A	155	21.575	86.297	3.904	1.00	55.91	A	C
ATOM	988	CG	GLU	A	155	20.425	86.200	2.930	1.00	60.44	A	C
ATOM	989	CD	GLU	A	155	19.870	87.567	2.559	1.00	62.12	A	C
ATOM	990	OE1	GLU	A	155	19.295	87.706	1.451	1.00	63.81	A	O
ATOM	991	OE2	GLU	A	155	19.995	88.502	3.388	1.00	63.89	A	O
ATOM	992	C	GLU	A	155	23.872	87.281	4.156	1.00	53.51	A	C
ATOM	993	O	GLU	A	155	23.898	88.488	4.392	1.00	53.63	A	O
ATOM	994	N	LEU	A	156	24.717	86.427	4.713	1.00	52.83	A	N
ATOM	995	CA	LEU	A	156	25.749	86.901	5.627	1.00	52.60	A	C
ATOM	996	CB	LEU	A	156	26.435	85.724	6.319	1.00	51.67	A	C
ATOM	997	CG	LEU	A	156	25.671	85.109	7.482	1.00	51.22	A	C
ATOM	998	CD1	LEU	A	156	26.336	83.810	7.931	1.00	51.36	A	C
ATOM	999	CD2	LEU	A	156	25.633	86.118	8.619	1.00	51.10	A	C
ATOM	1000	C	LEU	A	156	26.793	87.705	4.856	1.00	53.27	A	C
ATOM	1001	O	LEU	A	156	27.532	88.494	5.436	1.00	52.53	A	O
ATOM	1002	N	ARG	A	157	26.868	87.509	3.549	1.00	54.21	A	N
ATOM	1003	CA	ARG	A	157	27.854	88.250	2.780	1.00	55.80	A	C
ATOM	1004	CB	ARG	A	157	28.224	87.480	1.506	1.00	55.99	A	C
ATOM	1005	CG	ARG	A	157	29.725	87.431	1.214	1.00	56.99	A	C
ATOM	1006	CD	ARG	A	157	30.005	86.794	-0.142	1.00	57.45	A	C
ATOM	1007	NE	ARG	A	157	29.808	85.341	-0.202	1.00	56.59	A	N
ATOM	1008	CZ	ARG	A	157	30.708	84.436	0.179	1.00	56.27	A	C
ATOM	1009	NH1	ARG	A	157	31.882	84.828	0.664	1.00	54.34	A	N
ATOM	1010	NH2	ARG	A	157	30.447	83.137	0.037	1.00	56.60	A	N
ATOM	1011	C	ARG	A	157	27.305	89.638	2.437	1.00	56.50	A	C
ATOM	1012	O	ARG	A	157	28.057	90.602	2.266	1.00	55.64	A	O
ATOM	1013	N	LYS	A	158	25.981	89.729	2.362	1.00	58.01	A	N
ATOM	1014	CA	LYS	A	158	25.296	90.976	2.042	1.00	59.27	A	C
ATOM	1015	CB	LYS	A	158	23.790	90.708	1.856	1.00	59.33	A	C
ATOM	1016	CG	LYS	A	158	23.457	89.852	0.619	1.00	59.93	A	C
ATOM	1017	CD	LYS	A	158	21.986	89.986	0.181	1.00	61.30	A	C
ATOM	1018	CE	LYS	A	158	21.673	89.158	-1.081	1.00	62.49	A	C
ATOM	1019	NZ	LYS	A	158	22.638	89.410	-2.197	1.00	64.38	A	N
ATOM	1020	C	LYS	A	158	25.521	92.058	3.109	1.00	60.44	A	C
ATOM	1021	O	LYS	A	158	25.333	93.247	2.853	1.00	61.51	A	O
ATOM	1022	N	THR	A	159	25.934	91.651	4.300	1.00	61.88	A	N
ATOM	1023	CA	THR	A	159	26.183	92.608	5.367	1.00	62.58	A	C
ATOM	1024	CB	THR	A	159	26.301	91.897	6.719	1.00	62.67	A	C
ATOM	1025	OG1	THR	A	159	27.638	91.395	6.891	1.00	62.71	A	O
ATOM	1026	CG2	THR	A	159	25.316	90.731	6.774	1.00	62.06	A	C
ATOM	1027	C	THR	A	159	27.488	93.360	5.095	1.00	63.42	A	C
ATOM	1028	O	THR	A	159	27.975	94.111	5.941	1.00	62.94	A	O
ATOM	1029	N	LYS	A	160	28.059	93.136	3.916	1.00	64.98	A	N
ATOM	1030	CA	LYS	A	160	29.294	93.806	3.504	1.00	66.56	A	C
ATOM	1031	CB	LYS	A	160	28.961	95.223	2.981	1.00	68.34	A	C
ATOM	1032	CG	LYS	A	160	29.561	95.619	1.607	1.00	69.89	A	C
ATOM	1033	CD	LYS	A	160	29.404	97.135	1.301	1.00	70.40	A	C
ATOM	1034	CE	LYS	A	160	30.083	97.558	-0.020	1.00	69.82	A	C
ATOM	1035	NZ	LYS	A	160	30.136	99.042	-0.248	1.00	68.03	A	N
ATOM	1036	C	LYS	A	160	30.348	93.908	4.625	1.00	66.60	A	C
ATOM	1037	O	LYS	A	160	31.046	94.918	4.728	1.00	66.15	A	O
ATOM	1038	N	ALA	A	161	30.457	92.878	5.463	1.00	66.58	A	N
ATOM	1039	CA	ALA	A	161	31.450	92.849	6.554	1.00	66.20	A	C
ATOM	1040	CB	ALA	A	161	32.858	92.747	5.972	1.00	66.46	A	C
ATOM	1041	C	ALA	A	161	31.401	94.020	7.541	1.00	65.64	A	C
ATOM	1042	O	ALA	A	161	32.443	94.542	7.959	1.00	65.75	A	O
ATOM	1043	N	SER	A	162	30.194	94.425	7.916	1.00	64.68	A	N
ATOM	1044	CA	SER	A	162	30.010	95.530	8.843	1.00	62.90	A	C
ATOM	1045	CB	SER	A	162	29.229	96.644	8.151	1.00	63.15	A	C
ATOM	1046	OG	SER	A	162	28.035	96.123	7.596	1.00	61.81	A	O
ATOM	1047	C	SER	A	162	29.237	95.027	10.054	1.00	62.04	A	C

211/514

Figure 3

ATOM	1048	O	SER A 162	28.528	94.033	9.968	1.00	62.80	A	O
ATOM	1049	N	PRO A 163	29.368	95.708	11.205	1.00	61.06	A	N
ATOM	1050	CD	PRO A 163	30.254	96.865	11.437	1.00	61.26	A	C
ATOM	1051	CA	PRO A 163	28.679	95.329	12.446	1.00	59.39	A	C
ATOM	1052	CB	PRO A 163	28.949	96.522	13.360	1.00	60.20	A	C
ATOM	1053	CG	PRO A 163	30.328	96.923	12.953	1.00	60.85	A	C
ATOM	1054	C	PRO A 163	27.187	95.035	12.291	1.00	57.72	A	C
ATOM	1055	O	PRO A 163	26.444	95.791	11.652	1.00	57.48	A	O
ATOM	1056	N	CYS A 164	26.761	93.933	12.898	1.00	56.04	A	N
ATOM	1057	CA	CYS A 164	25.368	93.529	12.820	1.00	54.47	A	C
ATOM	1058	CB	CYS A 164	25.112	92.770	11.524	1.00	55.36	A	C
ATOM	1059	SG	CYS A 164	25.256	90.964	11.775	1.00	56.18	A	S
ATOM	1060	C	CYS A 164	24.898	92.612	13.952	1.00	52.70	A	C
ATOM	1061	O	CYS A 164	25.694	92.016	14.687	1.00	52.62	A	O
ATOM	1062	N	ASP A 165	23.575	92.481	14.024	1.00	50.24	A	N
ATOM	1063	CA	ASP A 165	22.915	91.619	14.981	1.00	46.33	A	C
ATOM	1064	CB	ASP A 165	21.722	92.305	15.628	1.00	49.03	A	C
ATOM	1065	CG	ASP A 165	20.900	91.342	16.457	1.00	51.64	A	C
ATOM	1066	OD1	ASP A 165	19.833	91.731	16.991	1.00	53.52	A	O
ATOM	1067	OD2	ASP A 165	21.330	90.176	16.577	1.00	52.67	A	O
ATOM	1068	C	ASP A 165	22.401	90.369	14.277	1.00	43.40	A	C
ATOM	1069	O	ASP A 165	21.325	90.379	13.665	1.00	44.27	A	O
ATOM	1070	N	PRO A 166	23.141	89.266	14.395	1.00	39.45	A	N
ATOM	1071	CD	PRO A 166	24.229	89.093	15.363	1.00	38.23	A	C
ATOM	1072	CA	PRO A 166	22.808	87.982	13.794	1.00	36.21	A	C
ATOM	1073	CB	PRO A 166	23.919	87.088	14.295	1.00	36.14	A	C
ATOM	1074	CG	PRO A 166	24.126	87.622	15.673	1.00	36.30	A	C
ATOM	1075	C	PRO A 166	21.451	87.457	14.220	1.00	34.56	A	C
ATOM	1076	O	PRO A 166	20.875	86.617	13.537	1.00	35.61	A	O
ATOM	1077	N	THR A 167	20.940	87.928	15.351	1.00	34.27	A	N
ATOM	1078	CA	THR A 167	19.650	87.435	15.829	1.00	34.91	A	C
ATOM	1079	CB	THR A 167	18.913	88.429	16.765	1.00	36.14	A	C
ATOM	1080	OG1	THR A 167	19.673	88.655	17.962	1.00	36.08	A	O
ATOM	1081	CG2	THR A 167	17.547	87.847	17.153	1.00	36.63	A	C
ATOM	1082	C	THR A 167	18.668	87.096	14.708	1.00	36.17	A	C
ATOM	1083	O	THR A 167	18.104	85.999	14.690	1.00	37.62	A	O
ATOM	1084	N	PHE A 168	18.449	88.037	13.783	1.00	36.83	A	N
ATOM	1085	CA	PHE A 168	17.493	87.830	12.683	1.00	35.83	A	C
ATOM	1086	CB	PHE A 168	17.245	89.146	11.913	1.00	37.43	A	C
ATOM	1087	CG	PHE A 168	16.118	89.055	10.888	1.00	37.95	A	C
ATOM	1088	CD1	PHE A 168	16.343	89.384	9.544	1.00	40.06	A	C
ATOM	1089	CD2	PHE A 168	14.851	88.584	11.257	1.00	37.81	A	C
ATOM	1090	CE1	PHE A 168	15.337	89.239	8.586	1.00	36.79	A	C
ATOM	1091	CE2	PHE A 168	13.836	88.435	10.307	1.00	37.47	A	C
ATOM	1092	CZ	PHE A 168	14.081	88.762	8.971	1.00	37.36	A	C
ATOM	1093	C	PHE A 168	17.890	86.728	11.705	1.00	33.59	A	C
ATOM	1094	O	PHE A 168	17.243	85.685	11.632	1.00	32.18	A	O
ATOM	1095	N	ILE A 169	18.930	86.985	10.930	1.00	31.14	A	N
ATOM	1096	CA	ILE A 169	19.425	86.014	9.972	1.00	29.91	A	C
ATOM	1097	CB	ILE A 169	20.822	86.378	9.607	1.00	29.35	A	C
ATOM	1098	CG2	ILE A 169	21.484	85.266	8.801	1.00	28.51	A	C
ATOM	1099	CG1	ILE A 169	20.748	87.769	8.982	1.00	31.20	A	C
ATOM	1100	CD1	ILE A 169	22.015	88.287	8.456	1.00	33.84	A	C
ATOM	1101	C	ILE A 169	19.402	84.615	10.546	1.00	30.35	A	C
ATOM	1102	O	ILE A 169	18.726	83.730	10.024	1.00	30.19	A	O
ATOM	1103	N	LEU A 170	20.138	84.420	11.631	1.00	30.79	A	N
ATOM	1104	CA	LEU A 170	20.193	83.129	12.287	1.00	30.36	A	C
ATOM	1105	CB	LEU A 170	20.917	83.241	13.611	1.00	28.30	A	C
ATOM	1106	CG	LEU A 170	22.411	82.988	13.536	1.00	26.76	A	C
ATOM	1107	CD1	LEU A 170	22.924	83.119	12.129	1.00	26.74	A	C
ATOM	1108	CD2	LEU A 170	23.088	83.964	14.447	1.00	25.84	A	C
ATOM	1109	C	LEU A 170	18.846	82.535	12.551	1.00	32.23	A	C
ATOM	1110	O	LEU A 170	18.725	81.325	12.615	1.00	35.48	A	O
ATOM	1111	N	GLY A 171	17.830	83.368	12.730	1.00	34.10	A	N
ATOM	1112	CA	GLY A 171	16.503	82.825	13.006	1.00	35.23	A	C
ATOM	1113	C	GLY A 171	15.766	82.330	11.775	1.00	35.23	A	C
ATOM	1114	O	GLY A 171	14.940	81.414	11.849	1.00	34.10	A	O
ATOM	1115	N	CYS A 172	16.067	82.957	10.647	1.00	35.63	A	N
ATOM	1116	CA	CYS A 172	15.453	82.613	9.382	1.00	38.39	A	C
ATOM	1117	CB	CYS A 172	15.835	83.647	8.324	1.00	42.27	A	C
ATOM	1118	SG	CYS A 172	15.470	85.362	8.786	1.00	49.13	A	S
ATOM	1119	C	CYS A 172	15.921	81.237	8.933	1.00	38.11	A	C
ATOM	1120	O	CYS A 172	15.113	80.376	8.555	1.00	39.52	A	O
ATOM	1121	N	ALA A 173	17.240	81.044	8.985	1.00	35.42	A	N
ATOM	1122	CA	ALA A 173	17.883	79.789	8.583	1.00	32.24	A	C

212/514

Figure 3

ATOM	1123	CB	ALA A 173	19.317	79.762	9.075	1.00	32.25	A	C
ATOM	1124	C	ALA A 173	17.142	78.555	9.072	1.00	30.48	A	C
ATOM	1125	O	ALA A 173	16.533	77.838	8.284	1.00	29.47	A	O
ATOM	1126	N	PRO A 174	17.174	78.301	10.385	1.00	30.52	A	N
ATOM	1127	CD	PRO A 174	17.698	79.183	11.431	1.00	30.51	A	C
ATOM	1128	CA	PRO A 174	16.506	77.148	10.984	1.00	31.09	A	C
ATOM	1129	CB	PRO A 174	16.604	77.419	12.482	1.00	30.69	A	C
ATOM	1130	CG	PRO A 174	17.862	78.235	12.596	1.00	32.01	A	C
ATOM	1131	C	PRO A 174	15.070	77.052	10.527	1.00	33.18	A	C
ATOM	1132	O	PRO A 174	14.609	75.994	10.102	1.00	33.76	A	O
ATOM	1133	N	CYS A 175	14.366	78.172	10.598	1.00	34.72	A	N
ATOM	1134	CA	CYS A 175	12.964	78.212	10.200	1.00	37.17	A	C
ATOM	1135	CB	CYS A 175	12.434	79.650	10.260	1.00	39.39	A	C
ATOM	1136	SG	CYS A 175	10.609	79.746	10.156	1.00	44.04	A	S
ATOM	1137	C	CYS A 175	12.792	77.664	8.790	1.00	36.16	A	C
ATOM	1138	O	CYS A 175	11.929	76.815	8.536	1.00	36.21	A	O
ATOM	1139	N	ASN A 176	13.630	78.145	7.880	1.00	34.30	A	N
ATOM	1140	CA	ASN A 176	13.558	77.710	6.501	1.00	32.50	A	C
ATOM	1141	CB	ASN A 176	14.657	78.360	5.689	1.00	33.07	A	C
ATOM	1142	CG	ASN A 176	14.117	79.371	4.743	1.00	32.89	A	C
ATOM	1143	OD1	ASN A 176	13.099	79.132	4.105	1.00	31.47	A	O
ATOM	1144	ND2	ASN A 176	14.777	80.522	4.649	1.00	33.96	A	N
ATOM	1145	C	ASN A 176	13.647	76.219	6.346	1.00	31.18	A	C
ATOM	1146	O	ASN A 176	12.910	75.618	5.575	1.00	31.23	A	O
ATOM	1147	N	VAL A 177	14.573	75.623	7.069	1.00	30.33	A	N
ATOM	1148	CA	VAL A 177	14.725	74.189	7.004	1.00	29.40	A	C
ATOM	1149	CB	VAL A 177	15.756	73.731	7.984	1.00	29.37	A	C
ATOM	1150	CG1	VAL A 177	15.798	72.227	8.010	1.00	28.97	A	C
ATOM	1151	CG2	VAL A 177	17.101	74.338	7.613	1.00	27.84	A	C
ATOM	1152	C	VAL A 177	13.414	73.492	7.342	1.00	30.00	A	C
ATOM	1153	O	VAL A 177	12.964	72.635	6.596	1.00	30.06	A	O
ATOM	1154	N	ILE A 178	12.812	73.843	8.478	1.00	30.53	A	N
ATOM	1155	CA	ILE A 178	11.552	73.227	8.884	1.00	31.22	A	C
ATOM	1156	CB	ILE A 178	11.064	73.771	10.222	1.00	30.11	A	C
ATOM	1157	CG2	ILE A 178	9.717	73.206	10.523	1.00	30.22	A	C
ATOM	1158	CG1	ILE A 178	11.997	73.347	11.353	1.00	31.04	A	C
ATOM	1159	CD1	ILE A 178	13.356	73.997	11.347	1.00	32.20	A	C
ATOM	1160	C	ILE A 178	10.516	73.573	7.840	1.00	32.98	A	C
ATOM	1161	O	ILE A 178	9.576	72.814	7.556	1.00	32.24	A	O
ATOM	1162	N	CYS A 179	10.724	74.754	7.274	1.00	34.97	A	N
ATOM	1163	CA	CYS A 179	9.885	75.338	6.234	1.00	37.21	A	C
ATOM	1164	CB	CYS A 179	10.412	76.738	5.930	1.00	37.73	A	C
ATOM	1165	SG	CYS A 179	9.155	77.934	5.540	1.00	39.52	A	S
ATOM	1166	C	CYS A 179	9.914	74.501	4.961	1.00	37.67	A	C
ATOM	1167	O	CYS A 179	8.889	74.278	4.318	1.00	38.11	A	O
ATOM	1168	N	SER A 180	11.117	74.053	4.614	1.00	37.52	A	N
ATOM	1169	CA	SER A 180	11.375	73.246	3.428	1.00	36.28	A	C
ATOM	1170	CB	SER A 180	12.859	73.372	3.075	1.00	37.29	A	C
ATOM	1171	OG	SER A 180	13.196	72.626	1.920	1.00	40.59	A	O
ATOM	1172	C	SER A 180	11.012	71.780	3.664	1.00	35.66	A	C
ATOM	1173	O	SER A 180	10.798	71.028	2.730	1.00	34.88	A	O
ATOM	1174	N	ILE A 181	10.941	71.376	4.922	1.00	36.48	A	N
ATOM	1175	CA	ILE A 181	10.619	69.997	5.243	1.00	36.62	A	C
ATOM	1176	CB	ILE A 181	11.090	69.650	6.660	1.00	35.69	A	C
ATOM	1177	CG2	ILE A 181	10.726	68.214	7.008	1.00	34.76	A	C
ATOM	1178	CG1	ILE A 181	12.589	69.887	6.761	1.00	34.54	A	C
ATOM	1179	CD1	ILE A 181	13.149	69.640	8.132	1.00	34.74	A	C
ATOM	1180	C	ILE A 181	9.123	69.737	5.162	1.00	38.64	A	C
ATOM	1181	O	ILE A 181	8.678	68.616	4.922	1.00	38.84	A	O
ATOM	1182	N	ILE A 182	8.340	70.781	5.369	1.00	39.51	A	N
ATOM	1183	CA	ILE A 182	6.908	70.616	5.341	1.00	40.16	A	C
ATOM	1184	CB	ILE A 182	6.227	71.499	6.351	1.00	39.63	A	C
ATOM	1185	CG2	ILE A 182	4.736	71.287	6.262	1.00	39.33	A	C
ATOM	1186	CG1	ILE A 182	6.719	71.182	7.740	1.00	39.38	A	C
ATOM	1187	CD1	ILE A 182	6.201	69.875	8.242	1.00	40.57	A	C
ATOM	1188	C	ILE A 182	6.331	70.994	4.004	1.00	41.93	A	C
ATOM	1189	O	ILE A 182	5.407	70.349	3.515	1.00	41.11	A	O
ATOM	1190	N	PHE A 183	6.888	72.052	3.434	1.00	43.33	A	N
ATOM	1191	CA	PHE A 183	6.424	72.574	2.178	1.00	44.94	A	C
ATOM	1192	CB	PHE A 183	6.434	74.090	2.235	1.00	44.91	A	C
ATOM	1193	CG	PHE A 183	5.572	74.658	3.300	1.00	42.33	A	C
ATOM	1194	CD1	PHE A 183	5.731	75.987	3.685	1.00	43.97	A	C
ATOM	1195	CD2	PHE A 183	4.607	73.874	3.928	1.00	43.82	A	C
ATOM	1196	CE1	PHE A 183	4.942	76.532	4.689	1.00	45.69	A	C
ATOM	1197	CE2	PHE A 183	3.805	74.404	4.937	1.00	45.10	A	C

213/514

Figure 3

ATOM	1198	CZ	PHE	A	183	3.973	75.743	5.324	1.00	45.41	A	C
ATOM	1199	C	PHE	A	183	7.217	72.123	0.988	1.00	48.04	A	C
ATOM	1200	O	PHE	A	183	6.835	72.371	-0.148	1.00	49.27	A	O
ATOM	1201	N	HIS	A	184	8.342	71.478	1.233	1.00	52.31	A	N
ATOM	1202	CA	HIS	A	184	9.168	71.002	0.123	1.00	54.82	A	C
ATOM	1203	CB	HIS	A	184	8.296	70.326	-0.940	1.00	58.34	A	C
ATOM	1204	CG	HIS	A	184	8.819	70.490	-2.327	1.00	63.18	A	C
ATOM	1205	CD2	HIS	A	184	9.669	69.727	-3.054	1.00	65.51	A	C
ATOM	1206	ND1	HIS	A	184	8.572	71.616	-3.084	1.00	65.39	A	N
ATOM	1207	CE1	HIS	A	184	9.251	71.541	-4.212	1.00	67.01	A	C
ATOM	1208	NE2	HIS	A	184	9.928	70.405	-4.220	1.00	67.46	A	N
ATOM	1209	C	HIS	A	184	10.005	72.090	-0.551	1.00	53.55	A	C
ATOM	1210	O	HIS	A	184	11.017	71.788	-1.189	1.00	53.99	A	O
ATOM	1211	N	LYS	A	185	9.603	73.345	-0.396	1.00	52.69	A	N
ATOM	1212	CA	LYS	A	185	10.346	74.427	-1.021	1.00	53.76	A	C
ATOM	1213	CB	LYS	A	185	9.580	74.912	-2.268	1.00	58.14	A	C
ATOM	1214	CG	LYS	A	185	9.608	76.439	-2.532	1.00	63.95	A	C
ATOM	1215	CD	LYS	A	185	8.767	76.849	-3.767	1.00	66.84	A	C
ATOM	1216	CE	LYS	A	185	8.180	78.273	-3.621	1.00	68.43	A	C
ATOM	1217	NZ	LYS	A	185	6.903	78.339	-2.822	1.00	69.58	A	N
ATOM	1218	C	LYS	A	185	10.587	75.580	-0.066	1.00	51.06	A	C
ATOM	1219	O	LYS	A	185	9.651	76.068	0.555	1.00	52.02	A	O
ATOM	1220	N	ARG	A	186	11.832	76.032	0.049	1.00	47.42	A	N
ATOM	1221	CA	ARG	A	186	12.118	77.144	0.949	1.00	44.35	A	C
ATOM	1222	CB	ARG	A	186	13.624	77.282	1.181	1.00	44.00	A	C
ATOM	1223	CG	ARG	A	186	14.421	77.663	-0.047	1.00	41.53	A	C
ATOM	1224	CD	ARG	A	186	15.896	77.796	0.278	1.00	38.85	A	C
ATOM	1225	NE	ARG	A	186	16.269	79.021	1.004	1.00	37.49	A	N
ATOM	1226	CZ	ARG	A	186	16.598	80.171	0.419	1.00	38.65	A	C
ATOM	1227	NH1	ARG	A	186	16.591	80.278	-0.902	1.00	39.77	A	N
ATOM	1228	NH2	ARG	A	186	16.992	81.197	1.149	1.00	37.47	A	N
ATOM	1229	C	ARG	A	186	11.563	78.462	0.415	1.00	44.45	A	C
ATOM	1230	O	ARG	A	186	10.858	78.472	-0.590	1.00	45.33	A	O
ATOM	1231	N	PHE	A	187	11.868	79.561	1.108	1.00	44.86	A	N
ATOM	1232	CA	PHE	A	187	11.432	80.910	0.729	1.00	44.59	A	C
ATOM	1233	CB	PHE	A	187	10.510	81.534	1.774	1.00	46.44	A	C
ATOM	1234	CG	PHE	A	187	9.163	80.921	1.846	1.00	49.27	A	C
ATOM	1235	CD1	PHE	A	187	8.989	79.671	2.424	1.00	51.22	A	C
ATOM	1236	CD2	PHE	A	187	8.059	81.590	1.342	1.00	51.55	A	C
ATOM	1237	CE1	PHE	A	187	7.731	79.083	2.505	1.00	53.27	A	C
ATOM	1238	CE2	PHE	A	187	6.793	81.019	1.414	1.00	53.72	A	C
ATOM	1239	CZ	PHE	A	187	6.631	79.758	1.998	1.00	54.28	A	C
ATOM	1240	C	PHE	A	187	12.651	81.788	0.687	1.00	44.43	A	C
ATOM	1241	O	PHE	A	187	13.667	81.456	1.278	1.00	44.24	A	O
ATOM	1242	N	ASP	A	188	12.559	82.921	0.004	1.00	47.97	A	N
ATOM	1243	CA	ASP	A	188	13.692	83.827	-0.022	1.00	50.95	A	C
ATOM	1244	CB	ASP	A	188	13.585	84.793	-1.205	1.00	52.83	A	C
ATOM	1245	CG	ASP	A	188	14.926	85.423	-1.566	1.00	55.83	A	C
ATOM	1246	OD1	ASP	A	188	15.329	86.404	-0.902	1.00	56.59	A	O
ATOM	1247	OD2	ASP	A	188	15.588	84.929	-2.511	1.00	57.72	A	O
ATOM	1248	C	ASP	A	188	13.583	84.564	1.320	1.00	52.36	A	C
ATOM	1249	O	ASP	A	188	12.486	84.710	1.862	1.00	51.48	A	O
ATOM	1250	N	TYR	A	189	14.708	85.008	1.872	1.00	54.34	A	N
ATOM	1251	CA	TYR	A	189	14.680	85.701	3.156	1.00	56.57	A	C
ATOM	1252	CB	TYR	A	189	16.101	85.997	3.645	1.00	56.39	A	C
ATOM	1253	CG	TYR	A	189	16.886	84.768	4.066	1.00	55.67	A	C
ATOM	1254	CD1	TYR	A	189	18.172	84.886	4.605	1.00	55.15	A	C
ATOM	1255	CE1	TYR	A	189	18.922	83.758	4.940	1.00	53.84	A	C
ATOM	1256	CD2	TYR	A	189	16.365	83.480	3.885	1.00	54.91	A	C
ATOM	1257	CE2	TYR	A	189	17.106	82.349	4.220	1.00	54.27	A	C
ATOM	1258	CZ	TYR	A	189	18.383	82.496	4.739	1.00	53.51	A	C
ATOM	1259	OH	TYR	A	189	19.133	81.382	5.018	1.00	53.61	A	O
ATOM	1260	C	TYR	A	189	13.891	86.998	3.113	1.00	58.94	A	C
ATOM	1261	O	TYR	A	189	13.796	87.712	4.117	1.00	59.72	A	O
ATOM	1262	N	LYS	A	190	13.322	87.303	1.953	1.00	59.35	A	N
ATOM	1263	CA	LYS	A	190	12.554	88.531	1.795	1.00	60.04	A	C
ATOM	1264	CB	LYS	A	190	13.213	89.402	0.723	1.00	63.23	A	C
ATOM	1265	CG	LYS	A	190	14.565	90.004	1.147	1.00	67.30	A	C
ATOM	1266	CD	LYS	A	190	15.602	89.978	0.005	1.00	70.75	A	C
ATOM	1267	CE	LYS	A	190	15.127	90.705	-1.280	1.00	72.83	A	C
ATOM	1268	NZ	LYS	A	190	15.079	92.208	-1.194	1.00	72.62	A	N
ATOM	1269	C	LYS	A	190	11.085	88.286	1.467	1.00	58.50	A	C
ATOM	1270	O	LYS	A	190	10.248	89.157	1.691	1.00	56.42	A	O
ATOM	1271	N	ASP	A	191	10.782	87.097	0.952	1.00	57.75	A	N
ATOM	1272	CA	ASP	A	191	9.417	86.721	0.595	1.00	57.72	A	C

Figure 3

ATOM	1273	CB	ASP	A	191	9.368	85.214	0.318	1.00	60.76	A	C
ATOM	1274	CG	ASP	A	191	8.025	84.754	-0.221	1.00	64.66	A	C
ATOM	1275	OD1	ASP	A	191	7.967	83.644	-0.806	1.00	67.22	A	O
ATOM	1276	OD2	ASP	A	191	7.030	85.490	-0.059	1.00	65.52	A	O
ATOM	1277	C	ASP	A	191	8.441	87.100	1.709	1.00	57.11	A	C
ATOM	1278	O	ASP	A	191	8.701	86.832	2.875	1.00	59.28	A	O
ATOM	1279	N	GLN	A	192	7.308	87.707	1.371	1.00	55.36	A	N
ATOM	1280	CA	GLN	A	192	6.366	88.122	2.415	1.00	52.96	A	C
ATOM	1281	CB	GLN	A	192	5.286	89.029	1.831	1.00	52.66	A	C
ATOM	1282	CG	GLN	A	192	4.739	89.997	2.865	1.00	52.78	A	C
ATOM	1283	CD	GLN	A	192	5.842	90.853	3.486	1.00	53.25	A	C
ATOM	1284	OE1	GLN	A	192	6.620	91.508	2.770	1.00	52.70	A	O
ATOM	1285	NE2	GLN	A	192	5.918	90.849	4.819	1.00	51.70	A	N
ATOM	1286	C	GLN	A	192	5.712	87.004	3.216	1.00	50.98	A	C
ATOM	1287	O	GLN	A	192	5.681	87.076	4.443	1.00	50.13	A	O
ATOM	1288	N	GLN	A	193	5.182	85.993	2.525	1.00	50.13	A	N
ATOM	1289	CA	GLN	A	193	4.523	84.851	3.167	1.00	50.06	A	C
ATOM	1290	CB	GLN	A	193	4.395	83.684	2.172	1.00	52.74	A	C
ATOM	1291	CG	GLN	A	193	3.790	84.011	0.809	1.00	58.77	A	C
ATOM	1292	CD	GLN	A	193	3.945	82.867	-0.218	1.00	62.64	A	C
ATOM	1293	OE1	GLN	A	193	3.508	81.729	0.024	1.00	63.30	A	O
ATOM	1294	NE2	GLN	A	193	4.567	83.176	-1.378	1.00	63.69	A	N
ATOM	1295	C	GLN	A	193	5.368	84.389	4.356	1.00	48.34	A	C
ATOM	1296	O	GLN	A	193	4.844	84.028	5.417	1.00	46.82	A	O
ATOM	1297	N	PHE	A	194	6.683	84.412	4.127	1.00	45.85	A	N
ATOM	1298	CA	PHE	A	194	7.727	84.015	5.073	1.00	42.78	A	C
ATOM	1299	CB	PHE	A	194	9.074	83.938	4.336	1.00	40.95	A	C
ATOM	1300	CG	PHE	A	194	10.210	83.378	5.163	1.00	38.66	A	C
ATOM	1301	CD1	PHE	A	194	11.385	84.111	5.357	1.00	36.95	A	C
ATOM	1302	CD2	PHE	A	194	10.106	82.128	5.756	1.00	38.02	A	C
ATOM	1303	CE1	PHE	A	194	12.442	83.604	6.133	1.00	33.93	A	C
ATOM	1304	CE2	PHE	A	194	11.152	81.614	6.530	1.00	36.65	A	C
ATOM	1305	CZ	PHE	A	194	12.323	82.360	6.719	1.00	34.37	A	C
ATOM	1306	C	PHE	A	194	7.834	84.980	6.246	1.00	43.21	A	C
ATOM	1307	O	PHE	A	194	7.441	84.643	7.362	1.00	44.44	A	O
ATOM	1308	N	LEU	A	195	8.360	86.178	5.990	1.00	42.53	A	N
ATOM	1309	CA	LEU	A	195	8.519	87.193	7.031	1.00	41.23	A	C
ATOM	1310	CB	LEU	A	195	8.798	88.557	6.411	1.00	41.04	A	C
ATOM	1311	CG	LEU	A	195	10.269	88.873	6.137	1.00	42.01	A	C
ATOM	1312	CD1	LEU	A	195	10.364	89.503	4.759	1.00	41.36	A	C
ATOM	1313	CD2	LEU	A	195	10.841	89.818	7.211	1.00	43.00	A	C
ATOM	1314	C	LEU	A	195	7.305	87.285	7.945	1.00	40.50	A	C
ATOM	1315	O	LEU	A	195	7.431	87.687	9.094	1.00	39.73	A	O
ATOM	1316	N	ASN	A	196	6.136	86.925	7.433	1.00	42.43	A	N
ATOM	1317	CA	ASN	A	196	4.939	86.947	8.248	1.00	44.01	A	C
ATOM	1318	CB	ASN	A	196	3.700	86.665	7.418	1.00	46.95	A	C
ATOM	1319	CG	ASN	A	196	3.243	87.856	6.624	1.00	50.64	A	C
ATOM	1320	OD1	ASN	A	196	2.256	87.762	5.885	1.00	52.97	A	O
ATOM	1321	ND2	ASN	A	196	3.940	88.996	6.774	1.00	51.32	A	N
ATOM	1322	C	ASN	A	196	5.040	85.846	9.273	1.00	43.65	A	C
ATOM	1323	O	ASN	A	196	4.870	86.068	10.467	1.00	45.28	A	O
ATOM	1324	N	LEU	A	197	5.308	84.641	8.785	1.00	43.16	A	N
ATOM	1325	CA	LEU	A	197	5.408	83.468	9.637	1.00	43.05	A	C
ATOM	1326	CB	LEU	A	197	5.598	82.224	8.782	1.00	41.90	A	C
ATOM	1327	CG	LEU	A	197	5.807	80.937	9.564	1.00	42.72	A	C
ATOM	1328	CD1	LEU	A	197	4.734	80.771	10.631	1.00	42.81	A	C
ATOM	1329	CD2	LEU	A	197	5.792	79.769	8.601	1.00	42.76	A	C
ATOM	1330	C	LEU	A	197	6.548	83.597	10.615	1.00	43.59	A	C
ATOM	1331	O	LEU	A	197	6.439	83.212	11.774	1.00	42.79	A	O
ATOM	1332	N	MET	A	198	7.648	84.135	10.121	1.00	45.32	A	N
ATOM	1333	CA	MET	A	198	8.822	84.354	10.926	1.00	47.57	A	C
ATOM	1334	CB	MET	A	198	9.882	84.994	10.042	1.00	50.58	A	C
ATOM	1335	CG	MET	A	198	11.244	85.119	10.650	1.00	54.60	A	C
ATOM	1336	SD	MET	A	198	12.132	83.623	10.376	1.00	57.03	A	S
ATOM	1337	CE	MET	A	198	11.903	82.798	11.954	1.00	57.52	A	C
ATOM	1338	C	MET	A	198	8.416	85.307	12.064	1.00	48.86	A	C
ATOM	1339	O	MET	A	198	8.690	85.045	13.235	1.00	50.04	A	O
ATOM	1340	N	GLU	A	199	7.742	86.398	11.701	1.00	49.54	A	N
ATOM	1341	CA	GLU	A	199	7.282	87.423	12.643	1.00	51.03	A	C
ATOM	1342	CB	GLU	A	199	6.536	88.540	11.874	1.00	54.44	A	C
ATOM	1343	CG	GLU	A	199	5.838	89.653	12.718	1.00	59.17	A	C
ATOM	1344	CD	GLU	A	199	5.211	90.790	11.851	1.00	62.74	A	C
ATOM	1345	OE1	GLU	A	199	5.975	91.555	11.205	1.00	63.87	A	O
ATOM	1346	OE2	GLU	A	199	3.960	90.922	11.825	1.00	63.56	A	O
ATOM	1347	C	GLU	A	199	6.395	86.850	13.755	1.00	49.96	A	C

Figure 3

ATOM	1348	O	GLU A 199	6.662	87.069	14.941	1.00	50.98	A	O
ATOM	1349	N	LYS A 200	5.351	86.116	13.373	1.00	48.61	A	N
ATOM	1350	CA	LYS A 200	4.435	85.507	14.337	1.00	46.63	A	C
ATOM	1351	CB	LYS A 200	3.314	84.752	13.595	1.00	47.45	A	C
ATOM	1352	CG	LYS A 200	1.867	85.245	13.847	1.00	50.05	A	C
ATOM	1353	CD	LYS A 200	1.670	86.776	13.696	1.00	51.73	A	C
ATOM	1354	CE	LYS A 200	2.100	87.308	12.322	1.00	52.48	A	C
ATOM	1355	NZ	LYS A 200	2.021	88.801	12.162	1.00	53.40	A	N
ATOM	1356	C	LYS A 200	5.209	84.556	15.262	1.00	45.00	A	C
ATOM	1357	O	LYS A 200	5.005	84.553	16.474	1.00	44.17	A	O
ATOM	1358	N	LEU A 201	6.106	83.756	14.700	1.00	44.69	A	N
ATOM	1359	CA	LEU A 201	6.872	82.851	15.537	1.00	43.65	A	C
ATOM	1360	CB	LEU A 201	7.783	81.959	14.699	1.00	42.74	A	C
ATOM	1361	CG	LEU A 201	7.055	80.760	14.068	1.00	43.52	A	C
ATOM	1362	CD	LEU A 201	8.072	79.825	13.433	1.00	44.16	A	C
ATOM	1363	CD2	LEU A 201	6.239	80.013	15.122	1.00	44.74	A	C
ATOM	1364	C	LEU A 201	7.686	83.629	16.561	1.00	43.64	A	C
ATOM	1365	O	LEU A 201	7.661	83.289	17.740	1.00	43.21	A	O
ATOM	1366	N	ASN A 202	8.391	84.675	16.137	1.00	44.42	A	N
ATOM	1367	CA	ASN A 202	9.177	85.460	17.088	1.00	46.17	A	C
ATOM	1368	CB	ASN A 202	9.938	86.584	16.394	1.00	47.52	A	C
ATOM	1369	CG	ASN A 202	11.094	86.085	15.583	1.00	49.96	A	C
ATOM	1370	OD1	ASN A 202	11.838	86.876	15.000	1.00	49.56	A	O
ATOM	1371	ND2	ASN A 202	11.267	84.764	15.538	1.00	51.74	A	N
ATOM	1372	C	ASN A 202	8.351	86.093	18.181	1.00	47.23	A	C
ATOM	1373	O	ASN A 202	8.850	86.314	19.280	1.00	46.64	A	O
ATOM	1374	N	GLU A 203	7.101	86.413	17.881	1.00	48.98	A	N
ATOM	1375	CA	GLU A 203	6.261	87.048	18.882	1.00	51.22	A	C
ATOM	1376	CB	GLU A 203	4.991	87.636	18.241	1.00	55.06	A	C
ATOM	1377	CG	GLU A 203	4.327	88.782	19.047	1.00	61.12	A	C
ATOM	1378	CD	GLU A 203	3.066	89.357	18.383	1.00	65.28	A	C
ATOM	1379	OE1	GLU A 203	3.116	89.655	17.155	1.00	67.23	A	O
ATOM	1380	OE2	GLU A 203	2.032	89.531	19.095	1.00	67.47	A	O
ATOM	1381	C	GLU A 203	5.901	86.046	19.978	1.00	49.64	A	C
ATOM	1382	O	GLU A 203	6.099	86.338	21.145	1.00	50.21	A	O
ATOM	1383	N	ASN A 204	5.411	84.863	19.618	1.00	48.61	A	N
ATOM	1384	CA	ASN A 204	5.060	83.883	20.639	1.00	47.37	A	C
ATOM	1385	CB	ASN A 204	4.685	82.558	20.023	1.00	48.09	A	C
ATOM	1386	CG	ASN A 204	3.425	82.646	19.253	1.00	48.95	A	C
ATOM	1387	OD1	ASN A 204	2.952	81.665	18.703	1.00	51.65	A	O
ATOM	1388	ND2	ASN A 204	2.855	83.839	19.209	1.00	48.91	A	N
ATOM	1389	C	ASN A 204	6.197	83.639	21.582	1.00	47.81	A	C
ATOM	1390	O	ASN A 204	5.996	83.320	22.753	1.00	47.92	A	O
ATOM	1391	N	ILE A 205	7.406	83.750	21.063	1.00	47.04	A	N
ATOM	1392	CA	ILE A 205	8.557	83.538	21.902	1.00	47.61	A	C
ATOM	1393	CB	ILE A 205	9.832	83.460	21.080	1.00	47.66	A	C
ATOM	1394	CG2	ILE A 205	10.979	83.099	21.982	1.00	44.73	A	C
ATOM	1395	CG1	ILE A 205	9.681	82.408	19.980	1.00	48.21	A	C
ATOM	1396	CD1	ILE A 205	10.865	82.395	19.032	1.00	51.29	A	C
ATOM	1397	C	ILE A 205	8.660	84.695	22.887	1.00	49.16	A	C
ATOM	1398	O	ILE A 205	8.716	84.469	24.093	1.00	50.87	A	O
ATOM	1399	N	LYS A 206	8.664	85.935	22.373	1.00	49.48	A	N
ATOM	1400	CA	LYS A 206	8.754	87.131	23.201	1.00	49.08	A	C
ATOM	1401	CB	LYS A 206	8.545	88.384	22.346	1.00	52.13	A	C
ATOM	1402	CG	LYS A 206	9.688	88.680	21.389	1.00	59.24	A	C
ATOM	1403	CD	LYS A 206	9.426	89.948	20.592	1.00	63.85	A	C
ATOM	1404	CE	LYS A 206	10.569	90.244	19.634	1.00	66.06	A	C
ATOM	1405	NZ	LYS A 206	10.326	91.484	18.846	1.00	64.33	A	N
ATOM	1406	C	LYS A 206	7.725	87.097	24.325	1.00	47.00	A	C
ATOM	1407	O	LYS A 206	8.006	87.533	25.437	1.00	46.76	A	O
ATOM	1408	N	ILE A 207	6.534	86.577	24.022	1.00	46.06	A	N
ATOM	1409	CA	ILE A 207	5.450	86.471	24.996	1.00	44.33	A	C
ATOM	1410	CB	ILE A 207	4.086	86.092	24.343	1.00	43.84	A	C
ATOM	1411	CG2	ILE A 207	3.015	85.940	25.414	1.00	43.89	A	C
ATOM	1412	CG1	ILE A 207	3.628	87.149	23.351	1.00	44.63	A	C
ATOM	1413	CD1	ILE A 207	2.319	86.776	22.675	1.00	44.06	A	C
ATOM	1414	C	ILE A 207	5.763	85.360	25.987	1.00	44.39	A	C
ATOM	1415	O	ILE A 207	5.607	85.534	27.187	1.00	44.75	A	O
ATOM	1416	N	LEU A 208	6.191	84.217	25.468	1.00	44.39	A	N
ATOM	1417	CA	LEU A 208	6.507	83.073	26.295	1.00	45.49	A	C
ATOM	1418	CB	LEU A 208	6.565	81.811	25.432	1.00	43.71	A	C
ATOM	1419	CG	LEU A 208	5.201	81.214	25.085	1.00	43.54	A	C
ATOM	1420	CD1	LEU A 208	5.339	80.087	24.070	1.00	42.54	A	C
ATOM	1421	CD2	LEU A 208	4.556	80.707	26.358	1.00	43.73	A	C
ATOM	1422	C	LEU A 208	7.805	83.215	27.084	1.00	48.17	A	C

216/514

Figure 3

ATOM	1423	O	LEU A 208	8.070	82.419	27.986	1.00	48.66	A	O
ATOM	1424	N	SER A 209	8.600	84.234	26.761	1.00	50.43	A	N
ATOM	1425	CA	SER A 209	9.888	84.476	27.416	1.00	52.68	A	C
ATOM	1426	CB	SER A 209	10.933	84.865	26.380	1.00	53.24	A	C
ATOM	1427	OG	SER A 209	10.767	86.228	26.008	1.00	53.27	A	O
ATOM	1428	C	SER A 209	9.827	85.587	28.451	1.00	55.00	A	C
ATOM	1429	O	SER A 209	10.857	86.151	28.841	1.00	55.96	A	O
ATOM	1430	N	SER A 210	8.620	85.936	28.864	1.00	56.45	A	N
ATOM	1431	CA	SER A 210	8.478	86.966	29.863	1.00	58.60	A	C
ATOM	1432	CB	SER A 210	7.183	87.748	29.671	1.00	59.67	A	C
ATOM	1433	OG	SER A 210	6.842	88.402	30.891	1.00	62.00	A	O
ATOM	1434	C	SER A 210	8.459	86.319	31.224	1.00	58.78	A	C
ATOM	1435	O	SER A 210	7.818	85.284	31.418	1.00	59.24	A	O
ATOM	1436	N	PRO A 211	9.169	86.919	32.180	1.00	59.06	A	N
ATOM	1437	CD	PRO A 211	10.138	88.004	31.970	1.00	59.01	A	C
ATOM	1438	CA	PRO A 211	9.243	86.417	33.543	1.00	59.94	A	C
ATOM	1439	CB	PRO A 211	10.072	87.472	34.242	1.00	59.15	A	C
ATOM	1440	CG	PRO A 211	11.038	87.859	33.177	1.00	59.90	A	C
ATOM	1441	C	PRO A 211	7.879	86.251	34.176	1.00	61.62	A	C
ATOM	1442	O	PRO A 211	7.590	85.203	34.745	1.00	61.24	A	O
ATOM	1443	N	TRP A 212	7.029	87.263	34.081	1.00	64.33	A	N
ATOM	1444	CA	TRP A 212	5.748	87.117	34.727	1.00	67.99	A	C
ATOM	1445	CB	TRP A 212	5.019	88.486	34.854	1.00	73.15	A	C
ATOM	1446	CG	TRP A 212	4.142	88.968	33.719	1.00	79.31	A	C
ATOM	1447	CD2	TRP A 212	2.728	89.241	33.791	1.00	83.37	A	C
ATOM	1448	CE2	TRP A 212	2.340	89.764	32.532	1.00	84.50	A	C
ATOM	1449	CE3	TRP A 212	1.751	89.093	34.798	1.00	85.56	A	C
ATOM	1450	CD1	TRP A 212	4.537	89.325	32.459	1.00	81.72	A	C
ATOM	1451	NE1	TRP A 212	3.461	89.805	31.744	1.00	82.90	A	N
ATOM	1452	CZ2	TRP A 212	1.014	90.150	32.251	1.00	85.66	A	C
ATOM	1453	CZ3	TRP A 212	0.432	89.477	34.517	1.00	85.85	A	C
ATOM	1454	CH2	TRP A 212	0.081	89.997	33.250	1.00	85.90	A	C
ATOM	1455	C	TRP A 212	4.854	86.030	34.125	1.00	67.23	A	C
ATOM	1456	O	TRP A 212	3.635	86.071	34.249	1.00	67.95	A	O
ATOM	1457	N	ILE A 213	5.462	85.033	33.491	1.00	66.79	A	N
ATOM	1458	CA	ILE A 213	4.691	83.931	32.919	1.00	66.79	A	C
ATOM	1459	CB	ILE A 213	5.413	83.288	31.707	1.00	66.20	A	C
ATOM	1460	CG2	ILE A 213	4.873	81.884	31.444	1.00	64.33	A	C
ATOM	1461	CG1	ILE A 213	5.167	84.130	30.461	1.00	66.93	A	C
ATOM	1462	CD1	ILE A 213	3.742	84.024	29.937	1.00	68.02	A	C
ATOM	1463	C	ILE A 213	4.459	82.858	33.979	1.00	67.64	A	C
ATOM	1464	O	ILE A 213	3.393	82.234	34.036	1.00	68.30	A	O
ATOM	1465	N	GLN A 214	5.476	82.642	34.808	1.00	67.36	A	N
ATOM	1466	CA	GLN A 214	5.395	81.664	35.878	1.00	66.76	A	C
ATOM	1467	CB	GLN A 214	6.732	81.568	36.609	1.00	67.01	A	C
ATOM	1468	CG	GLN A 214	7.463	80.284	36.315	1.00	67.71	A	C
ATOM	1469	CD	GLN A 214	7.553	80.005	34.830	1.00	67.89	A	C
ATOM	1470	OE1	GLN A 214	8.213	80.734	34.088	1.00	67.63	A	O
ATOM	1471	NE2	GLN A 214	6.873	78.951	34.385	1.00	66.79	A	N
ATOM	1472	C	GLN A 214	4.307	82.087	36.845	1.00	65.96	A	C
ATOM	1473	O	GLN A 214	3.607	81.250	37.421	1.00	66.03	A	O
ATOM	1474	N	VAL A 215	4.165	83.393	37.026	1.00	63.98	A	N
ATOM	1475	CA	VAL A 215	3.138	83.884	37.919	1.00	62.35	A	C
ATOM	1476	CB	VAL A 215	3.113	85.431	37.957	1.00	62.30	A	C
ATOM	1477	CG1	VAL A 215	1.903	85.918	38.731	1.00	62.40	A	C
ATOM	1478	CG2	VAL A 215	4.383	85.945	38.632	1.00	61.31	A	C
ATOM	1479	C	VAL A 215	1.805	83.329	37.422	1.00	61.03	A	C
ATOM	1480	O	VAL A 215	0.830	83.296	38.163	1.00	62.47	A	O
ATOM	1481	N	TYR A 216	1.772	82.873	36.172	1.00	58.50	A	N
ATOM	1482	CA	TYR A 216	0.551	82.299	35.627	1.00	56.96	A	C
ATOM	1483	CB	TYR A 216	0.563	82.305	34.104	1.00	56.16	A	C
ATOM	1484	CG	TYR A 216	0.008	83.556	33.485	1.00	56.82	A	C
ATOM	1485	CD1	TYR A 216	-0.867	83.481	32.420	1.00	56.98	A	C
ATOM	1486	CE1	TYR A 216	-1.381	84.618	31.833	1.00	58.80	A	C
ATOM	1487	CD2	TYR A 216	0.365	84.811	33.956	1.00	57.49	A	C
ATOM	1488	CE2	TYR A 216	-0.145	85.968	33.374	1.00	58.12	A	C
ATOM	1489	CZ	TYR A 216	-1.019	85.860	32.312	1.00	59.49	A	C
ATOM	1490	OH	TYR A 216	-1.555	86.985	31.718	1.00	62.87	A	O
ATOM	1491	C	TYR A 216	0.356	80.868	36.096	1.00	56.42	A	C
ATOM	1492	O	TYR A 216	-0.667	80.525	36.695	1.00	57.12	A	O
ATOM	1493	N	ASN A 217	1.337	80.022	35.819	1.00	56.23	A	N
ATOM	1494	CA	ASN A 217	1.245	78.616	36.191	1.00	54.99	A	C
ATOM	1495	CB	ASN A 217	2.464	77.881	35.658	1.00	53.94	A	C
ATOM	1496	CG	ASN A 217	2.638	78.078	34.181	1.00	53.70	A	C
ATOM	1497	OD1	ASN A 217	1.773	77.705	33.381	1.00	53.29	A	O

217/514

Figure 3

ATOM	1498	ND2	ASN	A	217	3.755	78.684	33.801	1.00	52.97	A	N
ATOM	1499	C	ASN	A	217	1.119	78.430	37.687	1.00	55.19	A	C
ATOM	1500	O	ASN	A	217	0.551	77.439	38.160	1.00	54.29	A	O
ATOM	1501	N	ASN	A	218	1.644	79.397	38.426	1.00	55.93	A	N
ATOM	1502	CA	ASN	A	218	1.573	79.354	39.873	1.00	58.12	A	C
ATOM	1503	CB	ASN	A	218	2.613	80.311	40.476	1.00	59.33	A	C
ATOM	1504	CG	ASN	A	218	3.949	79.631	40.751	1.00	61.16	A	C
ATOM	1505	OD1	ASN	A	218	4.033	78.713	41.575	1.00	61.90	A	O
ATOM	1506	ND2	ASN	A	218	5.000	80.075	40.058	1.00	61.97	A	N
ATOM	1507	C	ASN	A	218	0.159	79.710	40.357	1.00	58.09	A	C
ATOM	1508	O	ASN	A	218	-0.289	79.247	41.407	1.00	58.23	A	O
ATOM	1509	N	PHE	A	219	-0.552	80.508	39.568	1.00	56.89	A	N
ATOM	1510	CA	PHE	A	219	-1.899	80.904	39.926	1.00	55.35	A	C
ATOM	1511	CB	PHE	A	219	-1.887	82.327	40.486	1.00	56.31	A	C
ATOM	1512	CG	PHE	A	219	-0.831	82.563	41.550	1.00	57.27	A	C
ATOM	1513	CD1	PHE	A	219	0.292	83.341	41.275	1.00	58.48	A	C
ATOM	1514	CD2	PHE	A	219	-0.976	82.046	42.832	1.00	59.38	A	C
ATOM	1515	CE1	PHE	A	219	1.254	83.605	42.261	1.00	58.94	A	C
ATOM	1516	CE2	PHE	A	219	-0.019	82.304	43.826	1.00	59.97	A	C
ATOM	1517	CZ	PHE	A	219	1.095	83.088	43.535	1.00	58.62	A	C
ATOM	1518	C	PHE	A	219	-2.780	80.820	38.681	1.00	54.25	A	C
ATOM	1519	O	PHE	A	219	-3.017	81.820	38.012	1.00	54.22	A	O
ATOM	1520	N	PRO	A	220	-3.264	79.615	38.343	1.00	53.66	A	N
ATOM	1521	CD	PRO	A	220	-3.277	78.398	39.168	1.00	54.57	A	C
ATOM	1522	CA	PRO	A	220	-4.114	79.438	37.165	1.00	53.54	A	C
ATOM	1523	CB	PRO	A	220	-4.549	77.978	37.264	1.00	54.03	A	C
ATOM	1524	CG	PRO	A	220	-4.586	77.745	38.742	1.00	54.23	A	C
ATOM	1525	C	PRO	A	220	-5.288	80.383	37.209	1.00	54.16	A	C
ATOM	1526	O	PRO	A	220	-5.600	81.062	36.235	1.00	54.80	A	O
ATOM	1527	N	ALA	A	221	-5.939	80.415	38.363	1.00	54.60	A	N
ATOM	1528	CA	ALA	A	221	-7.040	81.343	38.524	1.00	54.25	A	C
ATOM	1529	CB	ALA	A	221	-7.563	81.254	39.973	1.00	56.40	A	C
ATOM	1530	C	ALA	A	221	-6.809	82.765	38.110	1.00	53.72	A	C
ATOM	1531	O	ALA	A	221	-7.860	83.466	37.913	1.00	55.96	A	O
ATOM	1532	N	LEU	A	222	-5.651	83.256	37.800	1.00	52.44	A	N
ATOM	1533	CA	LEU	A	222	-4.973	84.405	37.338	1.00	50.64	A	C
ATOM	1534	CB	LEU	A	222	-3.539	84.524	37.794	1.00	51.01	A	C
ATOM	1535	CG	LEU	A	222	-3.268	84.579	39.301	1.00	51.92	A	C
ATOM	1536	CD1	LEU	A	222	-1.764	84.571	39.555	1.00	51.84	A	C
ATOM	1537	CD2	LEU	A	222	-3.902	85.820	39.910	1.00	51.73	A	C
ATOM	1538	C	LEU	A	222	-5.128	84.754	35.846	1.00	49.69	A	C
ATOM	1539	O	LEU	A	222	-5.662	85.883	35.570	1.00	49.09	A	O
ATOM	1540	N	LEU	A	223	-4.642	83.963	34.955	1.00	49.23	A	N
ATOM	1541	CA	LEU	A	223	-4.723	83.937	33.472	1.00	46.32	A	C
ATOM	1542	CB	LEU	A	223	-4.330	82.553	33.023	1.00	47.25	A	C
ATOM	1543	CG	LEU	A	223	-2.824	82.238	33.256	1.00	46.68	A	C
ATOM	1544	CD1	LEU	A	223	-2.624	81.157	34.271	1.00	47.03	A	C
ATOM	1545	CD2	LEU	A	223	-2.087	82.056	31.966	1.00	49.48	A	C
ATOM	1546	C	LEU	A	223	-6.261	84.226	33.149	1.00	48.85	A	C
ATOM	1547	O	LEU	A	223	-6.302	85.206	32.314	1.00	51.04	A	O
ATOM	1548	CB	ASP	A	224	-9.802	83.459	34.102	1.00	67.19	A	C
ATOM	1549	CG	ASP	A	224	-10.084	82.071	33.728	1.00	69.59	A	C
ATOM	1550	OD1	ASP	A	224	-10.117	81.614	32.581	1.00	70.28	A	O
ATOM	1551	OD2	ASP	A	224	-10.470	81.319	34.698	1.00	68.94	A	O
ATOM	1552	C	ASP	A	224	-9.159	85.826	33.784	1.00	66.50	A	C
ATOM	1553	O	ASP	A	224	-9.883	86.431	33.016	1.00	67.48	A	O
ATOM	1554	N	ASP	A	224	-7.310	84.028	33.847	1.00	66.48	A	N
ATOM	1555	CA	ASP	A	224	-8.796	84.348	33.554	1.00	66.53	A	C
ATOM	1556	N	TYR	A	225	-8.385	86.372	34.708	1.00	67.26	A	N
ATOM	1557	CA	TYR	A	225	-8.455	87.792	35.022	1.00	67.21	A	C
ATOM	1558	CB	TYR	A	225	-8.075	88.041	36.489	1.00	68.53	A	C
ATOM	1559	CG	TYR	A	225	-9.108	87.580	37.504	1.00	70.23	A	C
ATOM	1560	CD1	TYR	A	225	-9.564	86.258	37.516	1.00	72.39	A	C
ATOM	1561	CE1	TYR	A	225	-10.483	85.812	38.472	1.00	73.64	A	C
ATOM	1562	CD2	TYR	A	225	-9.600	88.455	38.478	1.00	72.41	A	C
ATOM	1563	CE2	TYR	A	225	-10.521	88.018	39.442	1.00	73.72	A	C
ATOM	1564	CZ	TYR	A	225	-10.954	86.690	39.431	1.00	74.27	A	C
ATOM	1565	OH	TYR	A	225	-11.843	86.232	40.387	1.00	75.71	A	O
ATOM	1566	C	TYR	A	225	-7.598	88.643	34.110	1.00	66.26	A	C
ATOM	1567	O	TYR	A	225	-7.813	89.844	33.995	1.00	66.14	A	O
ATOM	1568	N	PHE	A	226	-6.618	88.034	33.464	1.00	66.27	A	N
ATOM	1569	CA	PHE	A	226	-5.782	88.797	32.561	1.00	67.01	A	C
ATOM	1570	CB	PHE	A	226	-4.476	89.179	33.245	1.00	66.57	A	C
ATOM	1571	CG	PHE	A	226	-4.651	90.195	34.336	1.00	66.96	A	C
ATOM	1572	CD1	PHE	A	226	-5.162	89.827	35.581	1.00	66.26	A	C

218/514

Figure 3

ATOM	1573	CD2	PHE	A	226	-4.324	91.529	34.112	1.00	66.46	A	C
ATOM	1574	CE1	PHE	A	226	-5.340	90.773	36.584	1.00	66.46	A	C
ATOM	1575	CE2	PHE	A	226	-4.499	92.483	35.109	1.00	68.19	A	C
ATOM	1576	CZ	PHE	A	226	-5.008	92.105	36.350	1.00	67.46	A	C
ATOM	1577	C	PHE	A	226	-5.528	88.013	31.294	1.00	67.22	A	C
ATOM	1578	O	PHE	A	226	-4.394	87.651	30.992	1.00	67.92	A	O
ATOM	1579	N	PRO	A	227	-6.597	87.747	30.523	1.00	67.02	A	N
ATOM	1580	CD	PRO	A	227	-7.987	88.172	30.756	1.00	67.54	A	C
ATOM	1581	CA	PRO	A	227	-6.494	86.994	29.271	1.00	66.59	A	C
ATOM	1582	CB	PRO	A	227	-7.916	87.030	28.725	1.00	66.73	A	C
ATOM	1583	CG	PRO	A	227	-8.753	87.154	29.957	1.00	67.83	A	C
ATOM	1584	C	PRO	A	227	-5.503	87.612	28.298	1.00	66.06	A	C
ATOM	1585	O	PRO	A	227	-5.099	86.955	27.339	1.00	66.24	A	O
ATOM	1586	N	GLY	A	228	-5.129	88.871	28.535	1.00	65.44	A	N
ATOM	1587	CA	GLY	A	228	-4.177	89.540	27.659	1.00	63.96	A	C
ATOM	1588	C	GLY	A	228	-3.183	88.559	27.058	1.00	63.05	A	C
ATOM	1589	O	GLY	A	228	-3.129	88.350	25.841	1.00	64.22	A	O
ATOM	1590	N	THR	A	229	-2.394	87.936	27.924	1.00	61.34	A	N
ATOM	1591	CA	THR	A	229	-1.417	86.959	27.474	1.00	58.02	A	C
ATOM	1592	CB	THR	A	229	-0.247	86.873	28.448	1.00	58.24	A	C
ATOM	1593	OG1	THR	A	229	0.461	88.121	28.442	1.00	58.34	A	O
ATOM	1594	CG2	THR	A	229	0.696	85.751	28.052	1.00	57.93	A	C
ATOM	1595	C	THR	A	229	-2.132	85.623	27.410	1.00	55.72	A	C
ATOM	1596	O	THR	A	229	-2.758	85.203	28.372	1.00	56.34	A	O
ATOM	1597	N	HIS	A	230	-2.044	84.982	26.257	1.00	52.99	A	N
ATOM	1598	CA	HIS	A	230	-2.676	83.697	25.985	1.00	52.28	A	C
ATOM	1599	CB	HIS	A	230	-3.170	82.985	27.266	1.00	51.90	A	C
ATOM	1600	CG	HIS	A	230	-4.650	83.082	27.519	1.00	53.74	A	C
ATOM	1601	CD2	HIS	A	230	-5.345	83.831	28.411	1.00	55.30	A	C
ATOM	1602	ND1	HIS	A	230	-5.570	82.303	26.864	1.00	54.44	A	N
ATOM	1603	CE1	HIS	A	230	-6.782	82.559	27.342	1.00	55.10	A	C
ATOM	1604	NE2	HIS	A	230	-6.670	83.478	28.278	1.00	55.50	A	N
ATOM	1605	C	HIS	A	230	-3.801	83.924	25.011	1.00	52.07	A	C
ATOM	1606	O	HIS	A	230	-4.380	82.980	24.496	1.00	52.43	A	O
ATOM	1607	N	ASN	A	231	-4.134	85.180	24.758	1.00	51.47	A	N
ATOM	1608	CA	ASN	A	231	-5.160	85.427	23.763	1.00	51.15	A	C
ATOM	1609	CB	ASN	A	231	-6.000	86.669	24.077	1.00	51.93	A	C
ATOM	1610	CG	ASN	A	231	-7.401	86.315	24.605	1.00	53.46	A	C
ATOM	1611	OD1	ASN	A	231	-7.865	85.173	24.468	1.00	52.52	A	O
ATOM	1612	ND2	ASN	A	231	-8.085	87.302	25.190	1.00	53.17	A	N
ATOM	1613	C	ASN	A	231	-4.338	85.620	22.508	1.00	51.10	A	C
ATOM	1614	O	ASN	A	231	-4.701	85.134	21.441	1.00	51.76	A	O
ATOM	1615	N	LYS	A	232	-3.201	86.301	22.649	1.00	50.86	A	N
ATOM	1616	CA	LYS	A	232	-2.312	86.515	21.508	1.00	51.66	A	C
ATOM	1617	CB	LYS	A	232	-1.174	87.488	21.848	1.00	52.42	A	C
ATOM	1618	CG	LYS	A	232	-1.623	88.867	22.280	1.00	55.41	A	C
ATOM	1619	CD	LYS	A	232	-1.306	89.156	23.748	1.00	58.46	A	C
ATOM	1620	CE	LYS	A	232	0.184	89.382	23.991	1.00	60.49	A	C
ATOM	1621	NZ	LYS	A	232	0.737	90.568	23.266	1.00	62.12	A	N
ATOM	1622	C	LYS	A	232	-1.711	85.175	21.103	1.00	51.04	A	C
ATOM	1623	O	LYS	A	232	-1.530	84.891	19.911	1.00	51.42	A	O
ATOM	1624	N	LEU	A	233	-1.395	84.351	22.095	1.00	48.73	A	N
ATOM	1625	CA	LEU	A	233	-0.827	83.045	21.796	1.00	47.64	A	C
ATOM	1626	CB	LEU	A	233	-0.457	82.301	23.087	1.00	46.18	A	C
ATOM	1627	CG	LEU	A	233	0.629	82.914	23.988	1.00	44.94	A	C
ATOM	1628	CD1	LEU	A	233	0.717	82.106	25.255	1.00	43.08	A	C
ATOM	1629	CD2	LEU	A	233	1.965	82.957	23.272	1.00	44.26	A	C
ATOM	1630	C	LEU	A	233	-1.853	82.245	20.995	1.00	47.40	A	C
ATOM	1631	O	LEU	A	233	-1.476	81.476	20.121	1.00	48.49	A	O
ATOM	1632	N	LEU	A	234	-3.145	82.431	21.274	1.00	46.87	A	N
ATOM	1633	CA	LEU	A	234	-4.166	81.702	20.526	1.00	45.45	A	C
ATOM	1634	CB	LEU	A	234	-5.492	81.639	21.302	1.00	45.09	A	C
ATOM	1635	CG	LEU	A	234	-5.570	80.680	22.510	1.00	45.83	A	C
ATOM	1636	CD1	LEU	A	234	-6.986	80.665	23.095	1.00	45.14	A	C
ATOM	1637	CD2	LEU	A	234	-5.173	79.275	22.078	1.00	45.48	A	C
ATOM	1638	C	LEU	A	234	-4.383	82.335	19.149	1.00	44.52	A	C
ATOM	1639	O	LEU	A	234	-4.593	81.623	18.165	1.00	43.36	A	O
ATOM	1640	N	LYS	A	235	-4.315	83.664	19.079	1.00	44.85	A	N
ATOM	1641	CA	LYS	A	235	-4.494	84.380	17.818	1.00	46.16	A	C
ATOM	1642	CB	LYS	A	235	-4.563	85.897	18.052	1.00	48.83	A	C
ATOM	1643	CG	LYS	A	235	-4.884	86.700	16.790	1.00	54.18	A	C
ATOM	1644	CD	LYS	A	235	-5.025	88.204	17.042	1.00	57.82	A	C
ATOM	1645	CE	LYS	A	235	-5.594	88.956	15.824	1.00	60.01	A	C
ATOM	1646	NZ	LYS	A	235	-5.721	90.440	16.035	1.00	60.36	A	N
ATOM	1647	C	LYS	A	235	-3.343	84.080	16.869	1.00	44.83	A	C

219/514

Figure 3

ATOM	1648	O	LYS A 235	-3.556	83.800	15.691	1.00	45.39	A	O
ATOM	1649	N	ASN A 236	-2.123	84.143	17.389	1.00	43.64	A	N
ATOM	1650	CA	ASN A 236	-0.947	83.875	16.576	1.00	42.12	A	C
ATOM	1651	CB	ASN A 236	0.316	84.241	17.347	1.00	41.81	A	C
ATOM	1652	CG	ASN A 236	0.566	85.734	17.346	1.00	42.15	A	C
ATOM	1653	OD1	ASN A 236	1.277	86.268	18.198	1.00	42.04	A	O
ATOM	1654	ND2	ASN A 236	-0.022	86.421	16.368	1.00	43.31	A	N
ATOM	1655	C	ASN A 236	-0.908	82.428	16.103	1.00	41.45	A	C
ATOM	1656	O	ASN A 236	-0.593	82.165	14.944	1.00	41.30	A	O
ATOM	1657	N	VAL A 237	-1.239	81.496	16.994	1.00	41.23	A	N
ATOM	1658	CA	VAL A 237	-1.269	80.085	16.645	1.00	40.51	A	C
ATOM	1659	CB	VAL A 237	-1.581	79.205	17.882	1.00	39.10	A	C
ATOM	1660	CG1	VAL A 237	-1.994	77.802	17.457	1.00	38.70	A	C
ATOM	1661	CG2	VAL A 237	-0.356	79.133	18.779	1.00	38.69	A	C
ATOM	1662	C	VAL A 237	-2.337	79.866	15.577	1.00	42.19	A	C
ATOM	1663	O	VAL A 237	-2.217	78.972	14.751	1.00	43.52	A	O
ATOM	1664	N	ALA A 238	-3.378	80.683	15.571	1.00	43.19	A	N
ATOM	1665	CA	ALA A 238	-4.405	80.506	14.561	1.00	44.23	A	C
ATOM	1666	CB	ALA A 238	-5.640	81.328	14.910	1.00	46.27	A	C
ATOM	1667	C	ALA A 238	-3.861	80.915	13.193	1.00	43.68	A	C
ATOM	1668	O	ALA A 238	-3.927	80.140	12.242	1.00	45.02	A	O
ATOM	1669	N	PHE A 239	-3.321	82.128	13.098	1.00	43.43	A	N
ATOM	1670	CA	PHE A 239	-2.769	82.638	11.841	1.00	43.06	A	C
ATOM	1671	CB	PHE A 239	-2.066	83.977	12.085	1.00	42.88	A	C
ATOM	1672	CG	PHE A 239	-1.324	84.500	10.895	1.00	44.13	A	C
ATOM	1673	CD1	PHE A 239	-1.872	84.423	9.622	1.00	44.72	A	C
ATOM	1674	CD2	PHE A 239	-0.080	85.087	11.048	1.00	45.21	A	C
ATOM	1675	CE1	PHE A 239	-1.187	84.927	8.516	1.00	45.82	A	C
ATOM	1676	CE2	PHE A 239	0.614	85.596	9.949	1.00	46.69	A	C
ATOM	1677	CZ	PHE A 239	0.060	85.515	8.682	1.00	46.56	A	C
ATOM	1678	C	PHE A 239	-1.800	81.652	11.194	1.00	42.45	A	C
ATOM	1679	O	PHE A 239	-1.675	81.606	9.969	1.00	42.92	A	O
ATOM	1680	N	MET A 240	-1.112	80.877	12.026	1.00	43.32	A	N
ATOM	1681	CA	MET A 240	-0.176	79.879	11.540	1.00	43.28	A	C
ATOM	1682	CB	MET A 240	0.833	79.504	12.640	1.00	42.40	A	C
ATOM	1683	CG	MET A 240	2.172	80.261	12.582	1.00	39.96	A	C
ATOM	1684	SD	MET A 240	2.988	80.384	14.192	1.00	39.00	A	S
ATOM	1685	CE	MET A 240	2.827	78.767	14.752	1.00	38.42	A	C
ATOM	1686	C	MET A 240	-0.977	78.651	11.083	1.00	43.79	A	C
ATOM	1687	O	MET A 240	-0.740	78.140	9.999	1.00	44.82	A	O
ATOM	1688	N	LYS A 241	-1.939	78.198	11.885	1.00	44.45	A	N
ATOM	1689	CA	LYS A 241	-2.751	77.042	11.515	1.00	45.26	A	C
ATOM	1690	CB	LYS A 241	-3.771	76.716	12.617	1.00	45.84	A	C
ATOM	1691	CG	LYS A 241	-3.304	75.741	13.717	1.00	46.20	A	C
ATOM	1692	CD	LYS A 241	-4.147	75.906	15.004	1.00	47.57	A	C
ATOM	1693	CE	LYS A 241	-4.753	74.598	15.525	1.00	47.82	A	C
ATOM	1694	NZ	LYS A 241	-5.905	74.084	14.711	1.00	49.91	A	N
ATOM	1695	C	LYS A 241	-3.492	77.281	10.194	1.00	46.64	A	C
ATOM	1696	O	LYS A 241	-3.720	76.345	9.427	1.00	47.48	A	O
ATOM	1697	N	SER A 242	-3.870	78.527	9.924	1.00	46.71	A	N
ATOM	1698	CA	SER A 242	-4.577	78.841	8.690	1.00	48.01	A	C
ATOM	1699	CB	SER A 242	-5.258	80.203	8.794	1.00	48.56	A	C
ATOM	1700	OG	SER A 242	-5.919	80.518	7.569	1.00	50.12	A	O
ATOM	1701	C	SER A 242	-3.616	78.852	7.513	1.00	48.26	A	C
ATOM	1702	O	SER A 242	-3.874	78.238	6.480	1.00	49.03	A	O
ATOM	1703	N	TYR A 243	-2.507	79.567	7.681	1.00	48.69	A	N
ATOM	1704	CA	TYR A 243	-1.479	79.671	6.650	1.00	48.20	A	C
ATOM	1705	CB	TYR A 243	-0.244	80.367	7.200	1.00	50.25	A	C
ATOM	1706	CG	TYR A 243	0.892	80.461	6.214	1.00	53.37	A	C
ATOM	1707	CD1	TYR A 243	0.742	81.154	5.021	1.00	54.77	A	C
ATOM	1708	CE1	TYR A 243	1.798	81.280	4.123	1.00	56.19	A	C
ATOM	1709	CD2	TYR A 243	2.131	79.886	6.489	1.00	54.92	A	C
ATOM	1710	CE2	TYR A 243	3.201	80.005	5.592	1.00	55.23	A	C
ATOM	1711	CZ	TYR A 243	3.028	80.707	4.414	1.00	55.47	A	C
ATOM	1712	OH	TYR A 243	4.078	80.867	3.535	1.00	54.95	A	O
ATOM	1713	C	TYR A 243	-1.079	78.295	6.174	1.00	47.59	A	C
ATOM	1714	O	TYR A 243	-0.816	78.098	4.998	1.00	47.82	A	O
ATOM	1715	N	ILE A 244	-1.007	77.356	7.110	1.00	47.54	A	N
ATOM	1716	CA	ILE A 244	-0.642	75.985	6.791	1.00	47.15	A	C
ATOM	1717	CB	ILE A 244	-0.379	75.180	8.054	1.00	46.32	A	C
ATOM	1718	CG2	ILE A 244	-0.360	73.694	7.729	1.00	45.96	A	C
ATOM	1719	CG1	ILE A 244	0.922	75.658	8.698	1.00	45.56	A	C
ATOM	1720	CD1	ILE A 244	1.137	75.125	10.100	1.00	45.17	A	C
ATOM	1721	C	ILE A 244	-1.789	75.344	6.045	1.00	47.80	A	C
ATOM	1722	O	ILE A 244	-1.629	74.876	4.922	1.00	48.89	A	O

Figure 3.

ATOM	1723	N	LEU A 245	-2.950	75.327	6.687	1.00	49.31	A	N
ATOM	1724	CA	LEU A 245	-4.148	74.763	6.091	1.00	49.50	A	C
ATOM	1725	CB	LEU A 245	-5.383	75.262	6.850	1.00	50.57	A	C
ATOM	1726	CG	LEU A 245	-6.739	74.646	6.504	1.00	53.06	A	C
ATOM	1727	CD1	LEU A 245	-7.333	75.294	5.255	1.00	54.34	A	C
ATOM	1728	CD2	LEU A 245	-6.561	73.141	6.311	1.00	52.66	A	C
ATOM	1729	C	LEU A 245	-4.214	75.188	4.633	1.00	49.73	A	C
ATOM	1730	O	LEU A 245	-4.551	74.386	3.767	1.00	49.38	A	O
ATOM	1731	N	GLU A 246	-3.895	76.453	4.370	1.00	50.41	A	N
ATOM	1732	CA	GLU A 246	-3.896	76.976	3.005	1.00	50.41	A	C
ATOM	1733	CB	GLU A 246	-3.314	78.404	2.995	1.00	52.58	A	C
ATOM	1734	CG	GLU A 246	-3.141	79.069	1.615	1.00	56.02	A	C
ATOM	1735	CD	GLU A 246	-2.460	80.450	1.681	1.00	59.52	A	C
ATOM	1736	OE1	GLU A 246	-2.857	81.276	2.544	1.00	58.62	A	O
ATOM	1737	OE2	GLU A 246	-1.536	80.714	0.859	1.00	62.01	A	O
ATOM	1738	C	GLU A 246	-3.029	76.032	2.165	1.00	50.34	A	C
ATOM	1739	O	GLU A 246	-3.468	75.512	1.147	1.00	51.45	A	O
ATOM	1740	N	LYS A 247	-1.809	75.787	2.632	1.00	49.68	A	N
ATOM	1741	CA	LYS A 247	-0.866	74.925	1.943	1.00	48.81	A	C
ATOM	1742	CB	LYS A 247	0.459	74.902	2.710	1.00	47.41	A	C
ATOM	1743	CG	LYS A 247	1.579	75.718	2.081	1.00	47.15	A	C
ATOM	1744	CD	LYS A 247	1.299	77.218	2.046	1.00	47.21	A	C
ATOM	1745	CE	LYS A 247	2.470	78.016	1.427	1.00	47.47	A	C
ATOM	1746	NZ	LYS A 247	2.700	77.769	-0.041	1.00	49.50	A	N
ATOM	1747	C	LYS A 247	-1.360	73.499	1.704	1.00	48.74	A	C
ATOM	1748	O	LYS A 247	-1.145	72.942	0.636	1.00	49.45	A	O
ATOM	1749	N	VAL A 248	-2.028	72.904	2.684	1.00	49.27	A	N
ATOM	1750	CA	VAL A 248	-2.512	71.540	2.524	1.00	51.08	A	C
ATOM	1751	CB	VAL A 248	-2.997	70.951	3.845	1.00	50.98	A	C
ATOM	1752	CG1	VAL A 248	-1.970	71.227	4.925	1.00	52.15	A	C
ATOM	1753	CG2	VAL A 248	-4.357	71.533	4.203	1.00	52.85	A	C
ATOM	1754	C	VAL A 248	-3.662	71.469	1.539	1.00	53.35	A	C
ATOM	1755	O	VAL A 248	-4.255	70.407	1.342	1.00	53.14	A	O
ATOM	1756	N	LYS A 249	-4.007	72.604	0.944	1.00	55.02	A	N
ATOM	1757	CA	LYS A 249	-5.074	72.618	-0.039	1.00	56.65	A	C
ATOM	1758	CB	LYS A 249	-5.967	73.852	0.140	1.00	57.72	A	C
ATOM	1759	CG	LYS A 249	-6.926	73.742	1.320	1.00	59.78	A	C
ATOM	1760	CD	LYS A 249	-8.075	74.740	1.197	1.00	61.55	A	C
ATOM	1761	CE	LYS A 249	-9.117	74.563	2.310	1.00	61.89	A	C
ATOM	1762	NZ	LYS A 249	-9.667	73.168	2.389	1.00	60.53	A	N
ATOM	1763	C	LYS A 249	-4.395	72.612	-1.399	1.00	56.74	A	C
ATOM	1764	O	LYS A 249	-4.827	71.917	-2.311	1.00	55.85	A	O
ATOM	1765	N	GLU A 250	-3.310	73.372	-1.513	1.00	58.18	A	N
ATOM	1766	CA	GLU A 250	-2.543	73.432	-2.749	1.00	60.53	A	C
ATOM	1767	CB	GLU A 250	-1.426	74.445	-2.633	1.00	61.19	A	C
ATOM	1768	CG	GLU A 250	-1.893	75.829	-2.347	1.00	63.62	A	C
ATOM	1769	CD	GLU A 250	-0.739	76.767	-2.141	1.00	66.37	A	C
ATOM	1770	OE1	GLU A 250	-1.002	77.973	-1.923	1.00	67.56	A	O
ATOM	1771	OE2	GLU A 250	0.428	76.298	-2.193	1.00	67.44	A	O
ATOM	1772	C	GLU A 250	-1.907	72.078	-2.984	1.00	61.24	A	C
ATOM	1773	O	GLU A 250	-1.595	71.701	-4.113	1.00	61.63	A	O
ATOM	1774	N	HIS A 251	-1.702	71.366	-1.887	1.00	61.79	A	N
ATOM	1775	CA	HIS A 251	-1.100	70.051	-1.913	1.00	62.88	A	C
ATOM	1776	CB	HIS A 251	-0.414	69.765	-0.579	1.00	61.61	A	C
ATOM	1777	CG	HIS A 251	0.985	70.284	-0.497	1.00	60.62	A	C
ATOM	1778	CD2	HIS A 251	2.151	69.647	-0.249	1.00	59.65	A	C
ATOM	1779	ND1	HIS A 251	1.306	71.615	-0.672	1.00	60.52	A	N
ATOM	1780	CE1	HIS A 251	2.610	71.772	-0.535	1.00	59.57	A	C
ATOM	1781	NE2	HIS A 251	3.146	70.592	-0.278	1.00	60.02	A	N
ATOM	1782	C	HIS A 251	-2.119	68.964	-2.207	1.00	64.15	A	C
ATOM	1783	O	HIS A 251	-1.827	68.041	-2.953	1.00	65.83	A	O
ATOM	1784	N	GLN A 252	-3.309	69.057	-1.620	1.00	64.80	A	N
ATOM	1785	CA	GLN A 252	-4.331	68.049	-1.867	1.00	65.37	A	C
ATOM	1786	CB	GLN A 252	-5.628	68.390	-1.133	1.00	64.01	A	C
ATOM	1787	CG	GLN A 252	-5.695	67.869	0.290	1.00	64.90	A	C
ATOM	1788	CD	GLN A 252	-6.961	68.325	0.996	1.00	65.23	A	C
ATOM	1789	OE1	GLN A 252	-7.785	67.502	1.407	1.00	65.86	A	O
ATOM	1790	NE2	GLN A 252	-7.121	69.649	1.141	1.00	65.65	A	N
ATOM	1791	C	GLN A 252	-4.597	67.941	-3.362	1.00	66.52	A	C
ATOM	1792	O	GLN A 252	-4.860	66.852	-3.874	1.00	66.18	A	O
ATOM	1793	N	GLU A 253	-4.509	69.063	-4.070	1.00	68.69	A	N
ATOM	1794	CA	GLU A 253	-4.748	69.067	-5.507	1.00	71.12	A	C
ATOM	1795	CB	GLU A 253	-5.002	70.507	-5.989	1.00	73.22	A	C
ATOM	1796	CG	GLU A 253	-5.803	70.601	-7.292	1.00	77.82	A	C
ATOM	1797	CD	GLU A 253	-4.980	70.260	-8.522	1.00	80.76	A	C

221/514

Figure 3

ATOM	1798	OE1	GLU	A	253	-5.581	69.951	-9.583	1.00	82.61	A	O
ATOM	1799	OE2	GLU	A	253	-3.731	70.313	-8.432	1.00	81.73	A	O
ATOM	1800	C	GLU	A	253	-3.583	68.428	-6.283	1.00	71.89	A	C
ATOM	1801	O	GLU	A	253	-3.763	67.398	-6.936	1.00	72.66	A	O
ATOM	1802	N	SER	A	254	-2.395	69.030	-6.188	1.00	72.93	A	N
ATOM	1803	CA	SER	A	254	-1.177	68.567	-6.885	1.00	73.01	A	C
ATOM	1804	CB	SER	A	254	-0.188	69.746	-7.012	1.00	73.07	A	C
ATOM	1805	OG	SER	A	254	0.896	69.479	-7.888	1.00	72.63	A	O
ATOM	1806	C	SER	A	254	-0.484	67.397	-6.167	1.00	72.77	A	C
ATOM	1807	O	SER	A	254	0.695	67.117	-6.399	1.00	71.98	A	O
ATOM	1808	N	MET	A	255	-1.218	66.721	-5.296	1.00	73.82	A	N
ATOM	1809	CA	MET	A	255	-0.671	65.599	-4.556	1.00	74.60	A	C
ATOM	1810	CB	MET	A	255	-1.563	65.272	-3.347	1.00	78.04	A	C
ATOM	1811	CG	MET	A	255	-1.497	63.831	-2.826	1.00	81.63	A	C
ATOM	1812	SD	MET	A	255	-2.792	62.753	-3.562	1.00	87.34	A	S
ATOM	1813	CE	MET	A	255	-4.238	63.080	-2.426	1.00	85.70	A	C
ATOM	1814	C	MET	A	255	-0.553	64.398	-5.473	1.00	73.64	A	C
ATOM	1815	O	MET	A	255	-1.513	64.023	-6.164	1.00	72.83	A	O
ATOM	1816	N	ASP	A	256	0.644	63.816	-5.483	1.00	71.90	A	N
ATOM	1817	CA	ASP	A	256	0.956	62.642	-6.291	1.00	69.92	A	C
ATOM	1818	CB	ASP	A	256	2.053	62.987	-7.317	1.00	70.72	A	C
ATOM	1819	CG	ASP	A	256	2.452	61.797	-8.186	1.00	70.58	A	C
ATOM	1820	OD1	ASP	A	256	1.645	60.843	-8.327	1.00	70.64	A	O
ATOM	1821	OD2	ASP	A	256	3.573	61.826	-8.745	1.00	71.56	A	O
ATOM	1822	C	ASP	A	256	1.407	61.505	-5.377	1.00	68.11	A	C
ATOM	1823	O	ASP	A	256	2.459	61.580	-4.736	1.00	66.52	A	O
ATOM	1824	N	MET	A	257	0.569	60.474	-5.301	1.00	65.51	A	N
ATOM	1825	CA	MET	A	257	0.858	59.293	-4.500	1.00	65.48	A	C
ATOM	1826	CB	MET	A	257	-0.343	58.330	-4.487	1.00	67.23	A	C
ATOM	1827	CG	MET	A	257	-1.680	58.915	-3.982	1.00	68.84	A	C
ATOM	1828	SD	MET	A	257	-2.119	58.564	-2.216	1.00	71.37	A	S
ATOM	1829	CE	MET	A	257	-3.678	59.580	-2.055	1.00	71.82	A	C
ATOM	1830	C	MET	A	257	2.028	58.649	-5.239	1.00	64.97	A	C
ATOM	1831	O	MET	A	257	2.217	58.912	-6.429	1.00	66.71	A	O
ATOM	1832	N	ASN	A	258	2.815	57.823	-4.556	1.00	65.17	A	N
ATOM	1833	CA	ASN	A	258	3.956	57.170	-5.203	1.00	64.71	A	C
ATOM	1834	CB	ASN	A	258	3.542	56.610	-6.577	1.00	66.50	A	C
ATOM	1835	CG	ASN	A	258	2.239	55.802	-6.529	1.00	68.28	A	C
ATOM	1836	OD1	ASN	A	258	2.187	54.719	-5.930	1.00	69.64	A	O
ATOM	1837	ND2	ASN	A	258	1.182	56.327	-7.169	1.00	66.98	A	N
ATOM	1838	C	ASN	A	258	5.102	58.167	-5.411	1.00	63.11	A	C
ATOM	1839	O	ASN	A	258	6.186	57.785	-5.856	1.00	63.10	A	O
ATOM	1840	N	ASN	A	259	4.854	59.436	-5.094	1.00	61.91	A	N
ATOM	1841	CA	ASN	A	259	5.859	60.474	-5.274	1.00	60.39	A	C
ATOM	1842	CB	ASN	A	259	5.712	61.082	-6.660	1.00	61.49	A	C
ATOM	1843	CG	ASN	A	259	6.204	60.165	-7.737	1.00	62.22	A	C
ATOM	1844	OD1	ASN	A	259	7.410	59.925	-7.856	1.00	64.39	A	O
ATOM	1845	ND2	ASN	A	259	5.279	59.632	-8.533	1.00	62.03	A	N
ATOM	1846	C	ASN	A	259	5.827	61.594	-4.249	1.00	59.45	A	C
ATOM	1847	O	ASN	A	259	5.931	62.773	-4.604	1.00	59.36	A	O
ATOM	1848	N	PRO	A	260	5.703	61.247	-2.963	1.00	57.71	A	N
ATOM	1849	CD	PRO	A	260	5.800	59.918	-2.334	1.00	57.55	A	C
ATOM	1850	CA	PRO	A	260	5.670	62.300	-1.952	1.00	56.35	A	C
ATOM	1851	CB	PRO	A	260	5.505	61.515	-0.660	1.00	56.68	A	C
ATOM	1852	CG	PRO	A	260	6.268	60.261	-0.940	1.00	57.06	A	C
ATOM	1853	C	PRO	A	260	6.957	63.115	-1.978	1.00	54.67	A	C
ATOM	1854	O	PRO	A	260	8.008	62.599	-2.352	1.00	53.80	A	O
ATOM	1855	N	GLN	A	261	6.868	64.383	-1.583	1.00	53.48	A	N
ATOM	1856	CA	GLN	A	261	8.033	65.246	-1.573	1.00	53.59	A	C
ATOM	1857	CB	GLN	A	261	7.981	66.226	-2.736	1.00	55.33	A	C
ATOM	1858	CG	GLN	A	261	7.916	65.601	-4.109	1.00	59.00	A	C
ATOM	1859	CD	GLN	A	261	8.675	66.440	-5.122	1.00	61.42	A	C
ATOM	1860	OE1	GLN	A	261	9.902	66.571	-5.028	1.00	62.22	A	O
ATOM	1861	NE2	GLN	A	261	7.954	67.027	-6.088	1.00	62.78	A	N
ATOM	1862	C	GLN	A	261	8.227	66.034	-0.283	1.00	52.56	A	C
ATOM	1863	O	GLN	A	261	9.262	66.675	-0.110	1.00	53.23	A	O
ATOM	1864	N	ASP	A	262	7.233	66.026	0.604	1.00	50.51	A	N
ATOM	1865	CA	ASP	A	262	7.349	66.734	1.888	1.00	48.20	A	C
ATOM	1866	CB	ASP	A	262	7.113	68.242	1.722	1.00	48.05	A	C
ATOM	1867	CG	ASP	A	262	5.731	68.583	1.166	1.00	47.66	A	C
ATOM	1868	OD1	ASP	A	262	5.648	69.644	0.493	1.00	46.01	A	O
ATOM	1869	OD2	ASP	A	262	4.752	67.828	1.409	1.00	45.97	A	O
ATOM	1870	C	ASP	A	262	6.450	66.199	2.991	1.00	47.06	A	C
ATOM	1871	O	ASP	A	262	5.629	65.313	2.767	1.00	46.54	A	O
ATOM	1872	N	PHE	A	263	6.609	66.749	4.187	1.00	45.53	A	N

Figure 3

ATOM	1873	CA	PHE	A	263	5.833	66.292	5.318	1.00	44.41	A	C
ATOM	1874	CB	PHE	A	263	6.007	67.217	6.508	1.00	44.42	A	C
ATOM	1875	CG	PHE	A	263	5.564	66.612	7.799	1.00	44.28	A	C
ATOM	1876	CD1	PHE	A	263	6.405	65.756	8.490	1.00	45.54	A	C
ATOM	1877	CD2	PHE	A	263	4.302	66.874	8.317	1.00	44.61	A	C
ATOM	1878	CE1	PHE	A	263	5.994	65.168	9.682	1.00	46.26	A	C
ATOM	1879	CE2	PHE	A	263	3.885	66.286	9.512	1.00	44.30	A	C
ATOM	1880	CZ	PHE	A	263	4.733	65.432	10.194	1.00	43.94	A	C
ATOM	1881	C	PHE	A	263	4.361	66.206	5.003	1.00	44.75	A	C
ATOM	1882	O	PHE	A	263	3.715	65.202	5.285	1.00	44.07	A	O
ATOM	1883	N	ILE	A	264	3.818	67.267	4.421	1.00	44.93	A	N
ATOM	1884	CA	ILE	A	264	2.393	67.285	4.099	1.00	45.85	A	C
ATOM	1885	CB	ILE	A	264	2.007	68.584	3.393	1.00	44.47	A	C
ATOM	1886	CG2	ILE	A	264	0.544	68.550	3.016	1.00	45.20	A	C
ATOM	1887	CG1	ILE	A	264	2.267	69.762	4.333	1.00	43.05	A	C
ATOM	1888	CD1	ILE	A	264	2.494	71.056	3.617	1.00	40.57	A	C
ATOM	1889	C	ILE	A	264	1.969	66.096	3.247	1.00	47.22	A	C
ATOM	1890	O	ILE	A	264	1.109	65.316	3.661	1.00	47.36	A	O
ATOM	1891	N	ASP	A	265	2.561	65.960	2.061	1.00	48.11	A	N
ATOM	1892	CA	ASP	A	265	2.223	64.845	1.175	1.00	48.71	A	C
ATOM	1893	CB	ASP	A	265	3.274	64.664	0.062	1.00	51.99	A	C
ATOM	1894	CG	ASP	A	265	3.223	65.755	-1.004	1.00	55.54	A	C
ATOM	1895	OD1	ASP	A	265	2.117	66.067	-1.506	1.00	58.02	A	O
ATOM	1896	OD2	ASP	A	265	4.303	66.289	-1.358	1.00	57.00	A	O
ATOM	1897	C	ASP	A	265	2.142	63.555	1.990	1.00	47.73	A	C
ATOM	1898	O	ASP	A	265	1.103	62.905	2.020	1.00	48.27	A	O
ATOM	1899	N	CYS	A	266	3.230	63.195	2.668	1.00	47.92	A	N
ATOM	1900	CA	CYS	A	266	3.250	61.962	3.451	1.00	47.92	A	C
ATOM	1901	CB	CYS	A	266	4.569	61.815	4.202	1.00	46.83	A	C
ATOM	1902	SG	CYS	A	266	6.034	62.159	3.221	1.00	45.03	A	S
ATOM	1903	C	CYS	A	266	2.107	61.908	4.452	1.00	48.66	A	C
ATOM	1904	O	CYS	A	266	1.631	60.831	4.808	1.00	49.40	A	O
ATOM	1905	N	PHE	A	267	1.680	63.072	4.923	1.00	49.73	A	N
ATOM	1906	CA	PHE	A	267	0.586	63.113	5.871	1.00	51.00	A	C
ATOM	1907	CB	PHE	A	267	0.569	64.434	6.655	1.00	50.24	A	C
ATOM	1908	CG	PHE	A	267	-0.195	64.358	7.951	1.00	49.19	A	C
ATOM	1909	CD1	PHE	A	267	0.447	64.020	9.135	1.00	48.78	A	C
ATOM	1910	CD2	PHE	A	267	-1.568	64.542	7.969	1.00	48.36	A	C
ATOM	1911	CE1	PHE	A	267	-0.270	63.874	10.303	1.00	47.51	A	C
ATOM	1912	CE2	PHE	A	267	-2.286	64.393	9.138	1.00	48.39	A	C
ATOM	1913	CZ	PHE	A	267	-1.638	64.054	10.298	1.00	47.78	A	C
ATOM	1914	C	PHE	A	267	-0.704	62.977	5.075	1.00	52.53	A	C
ATOM	1915	O	PHE	A	267	-1.704	62.451	5.572	1.00	53.33	A	O
ATOM	1916	N	LEU	A	268	-0.692	63.452	3.835	1.00	53.12	A	N
ATOM	1917	CA	LEU	A	268	-1.891	63.349	3.018	1.00	53.68	A	C
ATOM	1918	CB	LEU	A	268	-1.767	64.233	1.772	1.00	53.59	A	C
ATOM	1919	CG	LEU	A	268	-2.486	65.585	1.901	1.00	54.06	A	C
ATOM	1920	CD1	LEU	A	268	-2.130	66.252	3.208	1.00	55.12	A	C
ATOM	1921	CD2	LEU	A	268	-2.119	66.482	0.726	1.00	55.09	A	C
ATOM	1922	C	LEU	A	268	-2.209	61.898	2.631	1.00	55.44	A	C
ATOM	1923	O	LEU	A	268	-3.378	61.500	2.663	1.00	55.20	A	O
ATOM	1924	N	MET	A	269	-1.172	61.117	2.299	1.00	56.98	A	N
ATOM	1925	CA	MET	A	269	-1.339	59.714	1.907	1.00	59.34	A	C
ATOM	1926	CB	MET	A	269	-0.202	59.242	0.971	1.00	60.05	A	C
ATOM	1927	CG	MET	A	269	1.226	59.284	1.533	1.00	62.72	A	C
ATOM	1928	SD	MET	A	269	2.486	58.496	0.414	1.00	66.06	A	S
ATOM	1929	CE	MET	A	269	2.305	59.462	-1.107	1.00	64.43	A	C
ATOM	1930	C	MET	A	269	-1.450	58.778	3.101	1.00	59.39	A	C
ATOM	1931	O	MET	A	269	-1.872	57.619	2.984	1.00	58.85	A	O
ATOM	1932	N	LYS	A	270	-1.066	59.278	4.259	1.00	60.86	A	N
ATOM	1933	CA	LYS	A	270	-1.171	58.462	5.444	1.00	63.21	A	C
ATOM	1934	CB	LYS	A	270	-0.327	59.048	6.570	1.00	62.61	A	C
ATOM	1935	CG	LYS	A	270	-0.486	58.318	7.883	1.00	62.78	A	C
ATOM	1936	CD	LYS	A	270	0.024	56.886	7.827	1.00	62.60	A	C
ATOM	1937	CE	LYS	A	270	-0.266	56.187	9.156	1.00	62.44	A	C
ATOM	1938	NZ	LYS	A	270	0.446	54.886	9.340	1.00	61.09	A	N
ATOM	1939	C	LYS	A	270	-2.657	58.425	5.831	1.00	66.08	A	C
ATOM	1940	O	LYS	A	270	-3.127	57.445	6.413	1.00	66.10	A	O
ATOM	1941	N	MET	A	271	-3.395	59.485	5.489	1.00	68.08	A	N
ATOM	1942	CA	MET	A	271	-4.830	59.558	5.785	1.00	69.76	A	C
ATOM	1943	CB	MET	A	271	-5.391	60.951	5.484	1.00	70.16	A	C
ATOM	1944	CG	MET	A	271	-4.883	62.051	6.395	1.00	71.08	A	C
ATOM	1945	SD	MET	A	271	-5.821	63.610	6.235	1.00	71.85	A	S
ATOM	1946	CE	MET	A	271	-5.014	64.328	4.807	1.00	70.30	A	C
ATOM	1947	C	MET	A	271	-5.576	58.555	4.924	1.00	71.34	A	C

223/514

Figure 3

ATOM	1948	O	MET	A	271	-6.477	57.854	5.392	1.00	70.75	A	O
ATOM	1949	N	GLU	A	272	-5.193	58.510	3.651	1.00	73.69	A	N
ATOM	1950	CA	GLU	A	272	-5.805	57.609	2.688	1.00	76.77	A	C
ATOM	1951	CB	GLU	A	272	-5.337	57.948	1.256	1.00	77.75	A	C
ATOM	1952	CG	GLU	A	272	-6.175	57.319	0.116	1.00	80.19	A	C
ATOM	1953	CD	GLU	A	272	-7.297	58.227	-0.417	1.00	82.08	A	C
ATOM	1954	OE1	GLU	A	272	-8.033	58.843	0.397	1.00	83.11	A	O
ATOM	1955	OE2	GLU	A	272	-7.452	58.316	-1.663	1.00	82.13	A	O
ATOM	1956	C	GLU	A	272	-5.470	56.154	3.053	1.00	78.02	A	C
ATOM	1957	O	GLU	A	272	-6.196	55.241	2.668	1.00	78.91	A	O
ATOM	1958	N	LYS	A	273	-4.381	55.924	3.788	1.00	79.21	A	N
ATOM	1959	CA	LYS	A	273	-4.061	54.552	4.191	1.00	81.62	A	C
ATOM	1960	CB	LYS	A	273	-2.602	54.421	4.675	1.00	81.40	A	C
ATOM	1961	CG	LYS	A	273	-1.674	53.635	3.740	1.00	80.97	A	C
ATOM	1962	CD	LYS	A	273	-0.270	53.454	4.342	1.00	79.76	A	C
ATOM	1963	CE	LYS	A	273	-0.088	52.128	5.095	1.00	79.32	A	C
ATOM	1964	NZ	LYS	A	273	-0.956	51.961	6.289	1.00	78.75	A	N
ATOM	1965	C	LYS	A	273	-5.019	54.136	5.309	1.00	83.78	A	C
ATOM	1966	O	LYS	A	273	-5.399	52.964	5.414	1.00	84.35	A	O
ATOM	1967	N	GLU	A	274	-5.403	55.096	6.149	1.00	85.85	A	N
ATOM	1968	CA	GLU	A	274	-6.335	54.832	7.250	1.00	87.81	A	C
ATOM	1969	CB	GLU	A	274	-5.795	55.367	8.586	1.00	88.21	A	C
ATOM	1970	CG	GLU	A	274	-4.497	54.748	9.117	1.00	88.84	A	C
ATOM	1971	CD	GLU	A	274	-4.446	54.705	10.654	1.00	89.98	A	C
ATOM	1972	OE1	GLU	A	274	-4.579	55.772	11.306	1.00	89.79	A	O
ATOM	1973	OE2	GLU	A	274	-4.260	53.595	11.216	1.00	90.42	A	O
ATOM	1974	C	GLU	A	274	-7.690	55.493	6.993	1.00	88.99	A	C
ATOM	1975	O	GLU	A	274	-8.129	56.334	7.778	1.00	88.80	A	O
ATOM	1976	N	LYS	A	275	-8.357	55.146	5.895	1.00	90.84	A	N
ATOM	1977	CA	LYS	A	275	-9.667	55.759	5.636	1.00	92.51	A	C
ATOM	1978	CB	LYS	A	275	-9.799	56.253	4.187	1.00	92.71	A	C
ATOM	1979	CG	LYS	A	275	-9.978	55.130	3.164	1.00	93.07	A	C
ATOM	1980	CD	LYS	A	275	-10.842	55.534	1.959	1.00	92.63	A	C
ATOM	1981	CE	LYS	A	275	-10.220	56.677	1.155	1.00	92.20	A	C
ATOM	1982	NZ	LYS	A	275	-11.033	57.077	-0.040	1.00	89.91	A	N
ATOM	1983	C	LYS	A	275	-10.817	54.796	5.923	1.00	93.60	A	C
ATOM	1984	O	LYS	A	275	-11.966	55.218	5.981	1.00	93.67	A	O
ATOM	1985	N	HIS	A	276	-10.518	53.507	6.076	1.00	94.71	A	N
ATOM	1986	CA	HIS	A	276	-11.584	52.549	6.345	1.00	96.32	A	C
ATOM	1987	CB	HIS	A	276	-11.252	51.168	5.747	1.00	97.55	A	C
ATOM	1988	CG	HIS	A	276	-11.522	51.052	4.271	1.00	99.48	A	C
ATOM	1989	CD2	HIS	A	276	-10.777	50.532	3.263	1.00	100.35	A	C
ATOM	1990	ND1	HIS	A	276	-12.717	51.438	3.696	1.00	100.59	A	N
ATOM	1991	CE1	HIS	A	276	-12.698	51.156	2.405	1.00	100.68	A	C
ATOM	1992	NE2	HIS	A	276	-11.532	50.604	2.115	1.00	100.47	A	N
ATOM	1993	C	HIS	A	276	-11.915	52.421	7.848	1.00	96.16	A	C
ATOM	1994	O	HIS	A	276	-13.092	52.382	8.230	1.00	97.04	A	O
ATOM	1995	N	ASN	A	277	-10.880	52.353	8.688	1.00	95.48	A	N
ATOM	1996	CA	ASN	A	277	-11.035	52.265	10.144	1.00	95.07	A	C
ATOM	1997	CB	ASN	A	277	-9.850	51.489	10.755	1.00	94.90	A	C
ATOM	1998	CG	ASN	A	277	-9.284	50.423	9.802	1.00	95.36	A	C
ATOM	1999	OD1	ASN	A	277	-8.629	50.745	8.802	1.00	94.64	A	O
ATOM	2000	ND2	ASN	A	277	-9.539	49.152	10.112	1.00	94.72	A	N
ATOM	2001	C	ASN	A	277	-11.016	53.739	10.581	1.00	94.36	A	C
ATOM	2002	O	ASN	A	277	-9.951	54.296	10.848	1.00	94.37	A	O
ATOM	2003	N	GLN	A	278	-12.203	54.352	10.661	1.00	92.88	A	N
ATOM	2004	CA	GLN	A	278	-12.346	55.786	10.955	1.00	90.78	A	C
ATOM	2005	CB	GLN	A	278	-13.736	56.275	10.491	1.00	92.71	A	C
ATOM	2006	CG	GLN	A	278	-13.772	57.735	9.971	1.00	94.75	A	C
ATOM	2007	CD	GLN	A	278	-13.180	57.906	8.563	1.00	96.29	A	C
ATOM	2008	OE1	GLN	A	278	-13.861	57.683	7.552	1.00	96.62	A	O
ATOM	2009	NE2	GLN	A	278	-11.905	58.298	8.500	1.00	97.65	A	N
ATOM	2010	C	GLN	A	278	-12.036	56.399	12.324	1.00	88.62	A	C
ATOM	2011	O	GLN	A	278	-12.153	57.624	12.480	1.00	88.03	A	O
ATOM	2012	N	PRO	A	279	-11.685	55.589	13.342	1.00	86.91	A	N
ATOM	2013	CD	PRO	A	279	-11.669	54.132	13.585	1.00	86.58	A	C
ATOM	2014	CA	PRO	A	279	-11.399	56.341	14.571	1.00	85.27	A	C
ATOM	2015	CB	PRO	A	279	-10.855	55.267	15.509	1.00	85.50	A	C
ATOM	2016	CG	PRO	A	279	-11.654	54.052	15.105	1.00	86.84	A	C
ATOM	2017	C	PRO	A	279	-10.336	57.395	14.180	1.00	83.26	A	C
ATOM	2018	O	PRO	A	279	-10.417	58.560	14.585	1.00	83.50	A	O
ATOM	2019	N	SER	A	280	-9.375	56.957	13.358	1.00	80.24	A	N
ATOM	2020	CA	SER	A	280	-8.278	57.770	12.804	1.00	77.42	A	C
ATOM	2021	CB	SER	A	280	-8.658	58.298	11.419	1.00	77.72	A	C
ATOM	2022	OG	SER	A	280	-7.604	59.108	10.901	1.00	78.85	A	O

Figure 3

ATOM	2023	C	SER	A	280	-7.703	58.947	13.588	1.00	75.24	A	C
ATOM	2024	O	SER	A	280	-8.382	59.951	13.845	1.00	75.01	A	O
ATOM	2025	N	GLU	A	281	-6.422	58.847	13.921	1.00	72.24	A	N
ATOM	2026	CA	GLU	A	281	-5.756	59.913	14.670	1.00	67.62	A	C
ATOM	2027	CB	GLU	A	281	-4.674	59.301	15.565	1.00	68.81	A	C
ATOM	2028	CG	GLU	A	281	-4.715	59.755	17.030	1.00	71.33	A	C
ATOM	2029	CD	GLU	A	281	-5.927	59.244	17.803	1.00	72.38	A	C
ATOM	2030	OE1	GLU	A	281	-7.029	59.819	17.647	1.00	73.57	A	O
ATOM	2031	OE2	GLU	A	281	-5.780	58.260	18.573	1.00	73.31	A	O
ATOM	2032	C	GLU	A	281	-5.149	60.925	13.676	1.00	64.19	A	C
ATOM	2033	O	GLU	A	281	-4.541	61.922	14.077	1.00	63.18	A	O
ATOM	2034	N	PHE	A	282	-5.345	60.667	12.382	1.00	59.60	A	N
ATOM	2035	CA	PHE	A	282	-4.820	61.545	11.350	1.00	55.52	A	C
ATOM	2036	CB	PHE	A	282	-4.024	60.753	10.322	1.00	54.02	A	C
ATOM	2037	CG	PHE	A	282	-2.767	60.163	10.865	1.00	51.83	A	C
ATOM	2038	CD1	PHE	A	282	-2.803	58.993	11.619	1.00	51.43	A	C
ATOM	2039	CD2	PHE	A	282	-1.545	60.789	10.650	1.00	50.44	A	C
ATOM	2040	CE1	PHE	A	282	-1.638	58.455	12.160	1.00	51.62	A	C
ATOM	2041	CE2	PHE	A	282	-0.372	60.262	11.182	1.00	49.74	A	C
ATOM	2042	CZ	PHE	A	282	-0.417	59.091	11.939	1.00	50.75	A	C
ATOM	2043	C	PHE	A	282	-5.896	62.336	10.635	1.00	54.37	A	C
ATOM	2044	O	PHE	A	282	-6.552	61.829	9.723	1.00	54.22	A	O
ATOM	2045	N	THR	A	283	-6.076	63.583	11.055	1.00	52.76	A	N
ATOM	2046	CA	THR	A	283	-7.069	64.454	10.446	1.00	51.45	A	C
ATOM	2047	CB	THR	A	283	-8.113	64.947	11.471	1.00	52.95	A	C
ATOM	2048	OG1	THR	A	283	-7.482	65.844	12.395	1.00	54.36	A	O
ATOM	2049	CG2	THR	A	283	-8.710	63.773	12.241	1.00	54.03	A	C
ATOM	2050	C	THR	A	283	-6.350	65.664	9.901	1.00	50.36	A	C
ATOM	2051	O	THR	A	283	-5.211	65.938	10.266	1.00	49.28	A	O
ATOM	2052	N	ILE	A	284	-7.021	66.390	9.021	1.00	50.52	A	N
ATOM	2053	CA	ILE	A	284	-6.436	67.585	8.447	1.00	50.69	A	C
ATOM	2054	CB	ILE	A	284	-7.435	68.314	7.536	1.00	51.43	A	C
ATOM	2055	CG2	ILE	A	284	-6.712	69.388	6.735	1.00	50.58	A	C
ATOM	2056	CG1	ILE	A	284	-8.130	67.306	6.610	1.00	53.74	A	C
ATOM	2057	CD1	ILE	A	284	-7.204	66.635	5.602	1.00	55.57	A	C
ATOM	2058	C	ILE	A	284	-6.054	68.513	9.599	1.00	51.91	A	C
ATOM	2059	O	ILE	A	284	-5.064	69.230	9.523	1.00	51.67	A	O
ATOM	2060	N	GLU	A	285	-6.841	68.500	10.670	1.00	52.50	A	N
ATOM	2061	CA	GLU	A	285	-6.531	69.358	11.801	1.00	52.98	A	C
ATOM	2062	CB	GLU	A	285	-7.598	69.236	12.889	1.00	55.22	A	C
ATOM	2063	CG	GLU	A	285	-7.661	70.448	13.819	1.00	59.27	A	C
ATOM	2064	CD	GLU	A	285	-8.513	70.212	15.058	1.00	62.82	A	C
ATOM	2065	OE1	GLU	A	285	-9.599	69.603	14.917	1.00	63.35	A	O
ATOM	2066	OE2	GLU	A	285	-8.107	70.655	16.166	1.00	63.79	A	O
ATOM	2067	C	GLU	A	285	-5.166	68.973	12.371	1.00	51.50	A	C
ATOM	2068	O	GLU	A	285	-4.257	69.803	12.419	1.00	50.72	A	O
ATOM	2069	N	SER	A	286	-5.023	67.713	12.784	1.00	50.65	A	N
ATOM	2070	CA	SER	A	286	-3.765	67.223	13.354	1.00	48.41	A	C
ATOM	2071	CB	SER	A	286	-3.841	65.718	13.636	1.00	48.10	A	C
ATOM	2072	OG	SER	A	286	-4.691	65.060	12.718	1.00	49.68	A	O
ATOM	2073	C	SER	A	286	-2.561	67.528	12.476	1.00	47.27	A	C
ATOM	2074	O	SER	A	286	-1.495	67.858	12.983	1.00	46.11	A	O
ATOM	2075	N	LEU	A	287	-2.716	67.416	11.166	1.00	47.21	A	N
ATOM	2076	CA	LEU	A	287	-1.602	67.742	10.306	1.00	47.53	A	C
ATOM	2077	CB	LEU	A	287	-2.024	67.736	8.841	1.00	47.04	A	C
ATOM	2078	CG	LEU	A	287	-0.973	68.233	7.849	1.00	46.90	A	C
ATOM	2079	CD1	LEU	A	287	0.284	67.399	7.985	1.00	46.41	A	C
ATOM	2080	CD2	LEU	A	287	-1.510	68.184	6.416	1.00	46.99	A	C
ATOM	2081	C	LEU	A	287	-1.159	69.141	10.732	1.00	48.73	A	C
ATOM	2082	O	LEU	A	287	-0.010	69.343	11.114	1.00	50.57	A	O
ATOM	2083	N	GLU	A	288	-2.087	70.093	10.713	1.00	49.70	A	N
ATOM	2084	CA	GLU	A	288	-1.805	71.478	11.099	1.00	51.07	A	C
ATOM	2085	CB	GLU	A	288	-3.103	72.275	11.210	1.00	53.72	A	C
ATOM	2086	CG	GLU	A	288	-3.903	72.383	9.933	1.00	57.64	A	C
ATOM	2087	CD	GLU	A	288	-5.319	72.901	10.167	1.00	61.33	A	C
ATOM	2088	OE1	GLU	A	288	-5.964	73.360	9.191	1.00	62.67	A	O
ATOM	2089	OE2	GLU	A	288	-5.805	72.842	11.323	1.00	63.66	A	O
ATOM	2090	C	GLU	A	288	-1.074	71.593	12.429	1.00	50.03	A	C
ATOM	2091	O	GLU	A	288	-0.027	72.240	12.525	1.00	49.82	A	O
ATOM	2092	N	ASN	A	289	-1.653	70.980	13.458	1.00	48.58	A	N
ATOM	2093	CA	ASN	A	289	-1.077	70.996	14.794	1.00	46.94	A	C
ATOM	2094	CB	ASN	A	289	-1.929	70.153	15.748	1.00	51.57	A	C
ATOM	2095	CG	ASN	A	289	-3.327	70.736	15.968	1.00	55.39	A	C
ATOM	2096	OD1	ASN	A	289	-4.143	70.162	16.699	1.00	58.92	A	O
ATOM	2097	ND2	ASN	A	289	-3.606	71.874	15.343	1.00	56.07	A	N

Figure 3

ATOM	2098	C	ASN	A	289	0.341	70.453	14.750	1.00	44.40	A	C
ATOM	2099	O	ASN	A	289	1.273	71.085	15.235	1.00	43.86	A	O
ATOM	2100	N	THR	A	290	0.519	69.285	14.158	1.00	41.43	A	N
ATOM	2101	CA	THR	A	290	1.855	68.741	14.111	1.00	38.18	A	C
ATOM	2102	CB	THR	A	290	1.862	67.317	13.518	1.00	38.13	A	C
ATOM	2103	OG1	THR	A	290	0.690	66.616	13.951	1.00	38.91	A	O
ATOM	2104	CG2	THR	A	290	3.081	66.545	14.010	1.00	37.35	A	C
ATOM	2105	C	THR	A	290	2.781	69.664	13.323	1.00	35.59	A	C
ATOM	2106	O	THR	A	290	3.984	69.668	13.537	1.00	35.99	A	O
ATOM	2107	N	ALA	A	291	2.231	70.469	12.428	1.00	34.13	A	N
ATOM	2108	CA	ALA	A	291	3.071	71.372	11.657	1.00	33.37	A	C
ATOM	2109	CB	ALA	A	291	2.327	71.886	10.466	1.00	33.01	A	C
ATOM	2110	C	ALA	A	291	3.520	72.544	12.505	1.00	33.47	A	C
ATOM	2111	O	ALA	A	291	4.705	72.855	12.575	1.00	34.57	A	O
ATOM	2112	N	VAL	A	292	2.571	73.218	13.136	1.00	33.14	A	N
ATOM	2113	CA	VAL	A	292	2.944	74.350	13.954	1.00	32.40	A	C
ATOM	2114	CB	VAL	A	292	1.755	74.916	14.693	1.00	32.46	A	C
ATOM	2115	CG1	VAL	A	292	0.818	75.564	13.714	1.00	31.75	A	C
ATOM	2116	CG2	VAL	A	292	1.070	73.807	15.465	1.00	33.57	A	C
ATOM	2117	C	VAL	A	292	3.977	73.927	14.962	1.00	32.96	A	C
ATOM	2118	O	VAL	A	292	4.935	74.653	15.200	1.00	33.13	A	O
ATOM	2119	N	ASP	A	293	3.783	72.756	15.565	1.00	33.02	A	N
ATOM	2120	CA	ASP	A	293	4.755	72.288	16.550	1.00	34.56	A	C
ATOM	2121	CB	ASP	A	293	4.361	70.921	17.140	1.00	37.72	A	C
ATOM	2122	CG	ASP	A	293	3.133	71.008	18.056	1.00	41.87	A	C
ATOM	2123	OD1	ASP	A	293	2.759	69.981	18.678	1.00	43.62	A	O
ATOM	2124	OD2	ASP	A	293	2.525	72.109	18.162	1.00	45.09	A	O
ATOM	2125	C	ASP	A	293	6.126	72.236	15.858	1.00	33.46	A	C
ATOM	2126	O	ASP	A	293	7.050	72.925	16.284	1.00	33.81	A	O
ATOM	2127	N	LEU	A	294	6.257	71.471	14.778	1.00	29.68	A	N
ATOM	2128	CA	LEU	A	294	7.530	71.418	14.105	1.00	26.68	A	C
ATOM	2129	CB	LEU	A	294	7.412	70.646	12.808	1.00	24.49	A	C
ATOM	2130	CG	LEU	A	294	6.907	69.266	13.212	1.00	22.62	A	C
ATOM	2131	CD1	LEU	A	294	6.896	68.410	11.997	1.00	23.12	A	C
ATOM	2132	CD2	LEU	A	294	7.776	68.635	14.299	1.00	21.20	A	C
ATOM	2133	C	LEU	A	294	8.069	72.814	13.866	1.00	26.91	A	C
ATOM	2134	O	LEU	A	294	9.265	73.052	13.995	1.00	27.24	A	O
ATOM	2135	N	PHE	A	295	7.205	73.759	13.542	1.00	28.45	A	N
ATOM	2136	CA	PHE	A	295	7.691	75.110	13.325	1.00	30.62	A	C
ATOM	2137	CB	PHE	A	295	6.587	75.986	12.759	1.00	30.93	A	C
ATOM	2138	CG	PHE	A	295	6.682	76.160	11.282	1.00	31.09	A	C
ATOM	2139	CD1	PHE	A	295	7.648	77.001	10.732	1.00	32.65	A	C
ATOM	2140	CD2	PHE	A	295	5.835	75.459	10.434	1.00	31.25	A	C
ATOM	2141	CE1	PHE	A	295	7.776	77.130	9.362	1.00	33.38	A	C
ATOM	2142	CE2	PHE	A	295	5.955	75.583	9.067	1.00	31.32	A	C
ATOM	2143	CZ	PHE	A	295	6.926	76.424	8.526	1.00	32.67	A	C
ATOM	2144	C	PHE	A	295	8.247	75.746	14.592	1.00	32.23	A	C
ATOM	2145	O	PHE	A	295	9.407	76.158	14.626	1.00	33.44	A	O
ATOM	2146	N	GLY	A	296	7.429	75.814	15.636	1.00	33.49	A	N
ATOM	2147	CA	GLY	A	296	7.864	76.427	16.877	1.00	33.72	A	C
ATOM	2148	C	GLY	A	296	8.976	75.694	17.583	1.00	34.41	A	C
ATOM	2149	O	GLY	A	296	9.961	76.305	18.009	1.00	35.18	A	O
ATOM	2150	N	ALA	A	297	8.806	74.384	17.716	1.00	34.11	A	N
ATOM	2151	CA	ALA	A	297	9.785	73.536	18.381	1.00	33.96	A	C
ATOM	2152	CB	ALA	A	297	9.234	72.143	18.525	1.00	33.13	A	C
ATOM	2153	C	ALA	A	297	11.096	73.485	17.613	1.00	34.65	A	C
ATOM	2154	O	ALA	A	297	12.163	73.350	18.208	1.00	37.33	A	O
ATOM	2155	N	GLY	A	298	11.013	73.602	16.295	1.00	33.44	A	N
ATOM	2156	CA	GLY	A	298	12.217	73.547	15.504	1.00	32.09	A	C
ATOM	2157	C	GLY	A	298	12.892	74.867	15.226	1.00	32.86	A	C
ATOM	2158	O	GLY	A	298	13.961	74.889	14.628	1.00	35.89	A	O
ATOM	2159	N	THR	A	299	12.312	75.970	15.672	1.00	32.96	A	N
ATOM	2160	CA	THR	A	299	12.923	77.250	15.379	1.00	32.92	A	C
ATOM	2161	CB	THR	A	299	11.893	78.238	14.896	1.00	33.29	A	C
ATOM	2162	OG1	THR	A	299	11.141	77.650	13.834	1.00	35.54	A	O
ATOM	2163	CG2	THR	A	299	12.582	79.507	14.397	1.00	35.18	A	C
ATOM	2164	C	THR	A	299	13.688	77.926	16.487	1.00	33.30	A	C
ATOM	2165	O	THR	A	299	14.898	78.149	16.389	1.00	32.60	A	O
ATOM	2166	N	GLU	A	300	12.963	78.284	17.530	1.00	35.97	A	N
ATOM	2167	CA	GLU	A	300	13.549	78.977	18.649	1.00	37.91	A	C
ATOM	2168	CB	GLU	A	300	12.567	78.979	19.829	1.00	43.82	A	C
ATOM	2169	CG	GLU	A	300	13.100	79.603	21.128	1.00	51.85	A	C
ATOM	2170	CD	GLU	A	300	13.939	80.876	20.915	1.00	56.78	A	C
ATOM	2171	OE1	GLU	A	300	14.193	81.565	21.935	1.00	60.33	A	O
ATOM	2172	OE2	GLU	A	300	14.354	81.190	19.760	1.00	58.68	A	O

226/514

Figure 3

ATOM	2173	C	GLU	A	300	14.877	78.388	19.077	1.00	37.17	A	C
ATOM	2174	O	GLU	A	300	15.949	78.925	18.764	1.00	36.37	A	O
ATOM	2175	N	THR	A	301	14.781	77.261	19.773	1.00	35.41	A	N
ATOM	2176	CA	THR	A	301	15.919	76.547	20.338	1.00	33.32	A	C
ATOM	2177	CB	THR	A	301	15.478	75.156	20.779	1.00	36.72	A	C
ATOM	2178	OG1	THR	A	301	14.053	75.011	20.632	1.00	40.83	A	O
ATOM	2179	CG2	THR	A	301	15.799	74.980	22.227	1.00	40.90	A	C
ATOM	2180	C	THR	A	301	17.142	76.439	19.452	1.00	30.51	A	C
ATOM	2181	O	THR	A	301	18.246	76.768	19.858	1.00	29.16	A	O
ATOM	2182	N	THR	A	302	16.939	75.992	18.232	1.00	27.68	A	N
ATOM	2183	CA	THR	A	302	18.033	75.859	17.302	1.00	25.88	A	C
ATOM	2184	CB	THR	A	302	17.488	75.377	16.034	1.00	25.65	A	C
ATOM	2185	OG1	THR	A	302	16.518	74.362	16.328	1.00	27.39	A	O
ATOM	2186	CG2	THR	A	302	18.586	74.848	15.177	1.00	25.20	A	C
ATOM	2187	C	THR	A	302	18.689	77.188	17.056	1.00	26.85	A	C
ATOM	2188	O	THR	A	302	19.911	77.373	17.187	1.00	28.02	A	O
ATOM	2189	N	SER	A	303	17.833	78.119	16.686	1.00	27.80	A	N
ATOM	2190	CA	SER	A	303	18.234	79.476	16.402	1.00	27.43	A	C
ATOM	2191	CB	SER	A	303	16.997	80.362	16.424	1.00	28.46	A	C
ATOM	2192	OG	SER	A	303	17.291	81.615	15.860	1.00	32.26	A	O
ATOM	2193	C	SER	A	303	19.204	79.924	17.482	1.00	27.03	A	C
ATOM	2194	O	SER	A	303	20.390	80.160	17.236	1.00	26.00	A	O
ATOM	2195	N	THR	A	304	18.683	80.012	18.694	1.00	25.02	A	N
ATOM	2196	CA	THR	A	304	19.469	80.453	19.821	1.00	23.00	A	C
ATOM	2197	CB	THR	A	304	18.693	80.188	21.095	1.00	23.42	A	C
ATOM	2198	OG1	THR	A	304	17.351	80.639	20.907	1.00	22.16	A	O
ATOM	2199	CG2	THR	A	304	19.295	80.943	22.250	1.00	25.45	A	C
ATOM	2200	C	THR	A	304	20.866	79.830	19.894	1.00	22.75	A	C
ATOM	2201	O	THR	A	304	21.871	80.542	19.935	1.00	21.68	A	O
ATOM	2202	N	THR	A	305	20.917	78.503	19.906	1.00	21.36	A	N
ATOM	2203	CA	THR	A	305	22.171	77.747	19.966	1.00	18.95	A	C
ATOM	2204	CB	THR	A	305	21.883	76.291	19.664	1.00	20.47	A	C
ATOM	2205	OG1	THR	A	305	20.507	76.047	19.947	1.00	20.70	A	O
ATOM	2206	CG2	THR	A	305	22.714	75.388	20.545	1.00	21.88	A	C
ATOM	2207	C	THR	A	305	23.152	78.342	18.946	1.00	17.68	A	C
ATOM	2208	O	THR	A	305	24.266	78.717	19.292	1.00	14.31	A	O
ATOM	2209	N	LEU	A	306	22.717	78.427	17.694	1.00	15.48	A	N
ATOM	2210	CA	LEU	A	306	23.539	79.044	16.694	1.00	16.12	A	C
ATOM	2211	CB	LEU	A	306	22.800	79.215	15.401	1.00	16.12	A	C
ATOM	2212	CG	LEU	A	306	22.689	77.901	14.710	1.00	18.74	A	C
ATOM	2213	CD1	LEU	A	306	21.648	78.020	13.643	1.00	18.93	A	C
ATOM	2214	CD2	LEU	A	306	24.038	77.490	14.123	1.00	21.46	A	C
ATOM	2215	C	LEU	A	306	23.966	80.419	17.163	1.00	18.08	A	C
ATOM	2216	O	LEU	A	306	25.147	80.738	17.155	1.00	19.27	A	O
ATOM	2217	N	ARG	A	307	23.019	81.250	17.581	1.00	19.37	A	N
ATOM	2218	CA	ARG	A	307	23.373	82.605	18.026	1.00	19.79	A	C
ATOM	2219	CB	ARG	A	307	22.132	83.366	18.529	1.00	21.32	A	C
ATOM	2220	CG	ARG	A	307	22.283	84.900	18.567	1.00	23.50	A	C
ATOM	2221	CD	ARG	A	307	21.217	85.559	19.465	1.00	25.91	A	C
ATOM	2222	NE	ARG	A	307	19.928	84.866	19.370	1.00	31.08	A	N
ATOM	2223	CZ	ARG	A	307	18.979	84.866	20.313	1.00	33.91	A	C
ATOM	2224	NH1	ARG	A	307	19.149	85.533	21.454	1.00	37.34	A	N
ATOM	2225	NH2	ARG	A	307	17.858	84.172	20.124	1.00	33.98	A	N
ATOM	2226	C	ARG	A	307	24.413	82.543	19.139	1.00	19.68	A	C
ATOM	2227	O	ARG	A	307	25.426	83.251	19.118	1.00	18.80	A	O
ATOM	2228	N	TYR	A	308	24.149	81.678	20.110	1.00	18.80	A	N
ATOM	2229	CA	TYR	A	308	25.014	81.487	21.268	1.00	16.88	A	C
ATOM	2230	CB	TYR	A	308	24.291	80.591	22.259	1.00	14.24	A	C
ATOM	2231	CG	TYR	A	308	24.467	81.032	23.672	1.00	11.61	A	C
ATOM	2232	CD1	TYR	A	308	23.483	80.806	24.613	1.00	11.98	A	C
ATOM	2233	CE1	TYR	A	308	23.652	81.214	25.924	1.00	11.22	A	C
ATOM	2234	CD2	TYR	A	308	25.625	81.674	24.074	1.00	11.42	A	C
ATOM	2235	CE2	TYR	A	308	25.800	82.078	25.375	1.00	11.20	A	C
ATOM	2236	CZ	TYR	A	308	24.816	81.850	26.297	1.00	10.16	A	C
ATOM	2237	OH	TYR	A	308	25.002	82.262	27.585	1.00	8.36	A	O
ATOM	2238	C	TYR	A	308	26.344	80.871	20.871	1.00	16.86	A	C
ATOM	2239	O	TYR	A	308	27.357	81.064	21.539	1.00	16.33	A	O
ATOM	2240	N	ALA	A	309	26.329	80.102	19.791	1.00	16.71	A	N
ATOM	2241	CA	ALA	A	309	27.558	79.488	19.335	1.00	19.39	A	C
ATOM	2242	CB	ALA	A	309	27.293	78.585	18.147	1.00	19.62	A	C
ATOM	2243	C	ALA	A	309	28.526	80.613	18.954	1.00	20.58	A	C
ATOM	2244	O	ALA	A	309	29.580	80.764	19.564	1.00	21.45	A	O
ATOM	2245	N	LEU	A	310	28.154	81.405	17.954	1.00	23.65	A	N
ATOM	2246	CA	LEU	A	310	28.988	82.505	17.496	1.00	25.38	A	C
ATOM	2247	CB	LEU	A	310	28.230	83.376	16.488	1.00	25.92	A	C

227/514

Figure 3

ATOM	2248	CG	LEU	A	310	27.620	82.641	15.304	1.00	26.72	A	C
ATOM	2249	CD1	LEU	A	310	26.914	83.616	14.373	1.00	28.19	A	C
ATOM	2250	CD2	LEU	A	310	28.698	81.904	14.561	1.00	26.72	A	C
ATOM	2251	C	LEU	A	310	29.502	83.385	18.639	1.00	26.28	A	C
ATOM	2252	O	LEU	A	310	30.649	83.834	18.625	1.00	27.54	A	O
ATOM	2253	N	LEU	A	311	28.656	83.654	19.620	1.00	26.28	A	N
ATOM	2254	CA	LEU	A	311	29.090	84.479	20.736	1.00	25.97	A	C
ATOM	2255	CB	LEU	A	311	28.002	84.526	21.806	1.00	25.04	A	C
ATOM	2256	CG	LEU	A	311	28.277	85.396	23.025	1.00	23.78	A	C
ATOM	2257	CD1	LEU	A	311	28.612	86.817	22.610	1.00	24.45	A	C
ATOM	2258	CD2	LEU	A	311	27.053	85.375	23.913	1.00	23.81	A	C
ATOM	2259	C	LEU	A	311	30.378	83.881	21.307	1.00	26.20	A	C
ATOM	2260	O	LEU	A	311	31.430	84.529	21.349	1.00	25.70	A	O
ATOM	2261	N	LEU	A	312	30.289	82.621	21.719	1.00	26.44	A	N
ATOM	2262	CA	LEU	A	312	31.433	81.907	22.280	1.00	25.54	A	C
ATOM	2263	CB	LEU	A	312	31.022	80.477	22.613	1.00	21.77	A	C
ATOM	2264	CG	LEU	A	312	29.954	80.551	23.695	1.00	18.47	A	C
ATOM	2265	CD1	LEU	A	312	29.224	79.240	23.826	1.00	19.53	A	C
ATOM	2266	CD2	LEU	A	312	30.611	80.956	24.984	1.00	16.54	A	C
ATOM	2267	C	LEU	A	312	32.646	81.914	21.354	1.00	26.74	A	C
ATOM	2268	O	LEU	A	312	33.756	82.215	21.796	1.00	28.10	A	O
ATOM	2269	N	LEU	A	313	32.440	81.596	20.077	1.00	26.88	A	N
ATOM	2270	CA	LEU	A	313	33.548	81.586	19.130	1.00	28.17	A	C
ATOM	2271	CB	LEU	A	313	33.076	81.099	17.758	1.00	24.47	A	C
ATOM	2272	CG	LEU	A	313	32.663	79.634	17.736	1.00	22.63	A	C
ATOM	2273	CD1	LEU	A	313	32.233	79.219	16.350	1.00	20.78	A	C
ATOM	2274	CD2	LEU	A	313	33.825	78.794	18.210	1.00	22.07	A	C
ATOM	2275	C	LEU	A	313	34.189	82.970	19.023	1.00	30.65	A	C
ATOM	2276	O	LEU	A	313	35.234	83.137	18.395	1.00	31.95	A	O
ATOM	2277	N	LEU	A	314	33.559	83.962	19.647	1.00	32.72	A	N
ATOM	2278	CA	LEU	A	314	34.086	85.322	19.636	1.00	35.40	A	C
ATOM	2279	CB	LEU	A	314	32.960	86.345	19.716	1.00	35.01	A	C
ATOM	2280	CG	LEU	A	314	32.421	86.887	18.412	1.00	36.14	A	C
ATOM	2281	CD1	LEU	A	314	31.111	87.604	18.653	1.00	37.85	A	C
ATOM	2282	CD2	LEU	A	314	33.433	87.829	17.807	1.00	37.13	A	C
ATOM	2283	C	LEU	A	314	34.960	85.487	20.853	1.00	37.92	A	C
ATOM	2284	O	LEU	A	314	36.100	85.931	20.768	1.00	39.82	A	O
ATOM	2285	N	LYS	A	315	34.388	85.130	21.993	1.00	39.41	A	N
ATOM	2286	CA	LYS	A	315	35.074	85.218	23.263	1.00	41.54	A	C
ATOM	2287	CB	LYS	A	315	34.177	84.660	24.366	1.00	41.46	A	C
ATOM	2288	CG	LYS	A	315	34.785	84.629	25.750	1.00	42.70	A	C
ATOM	2289	CD	LYS	A	315	34.513	85.906	26.516	1.00	45.46	A	C
ATOM	2290	CE	LYS	A	315	34.677	85.683	28.022	1.00	49.13	A	C
ATOM	2291	NZ	LYS	A	315	34.335	86.903	28.837	1.00	52.38	A	N
ATOM	2292	C	LYS	A	315	36.374	84.417	23.189	1.00	44.25	A	C
ATOM	2293	O	LYS	A	315	37.438	84.900	23.573	1.00	45.87	A	O
ATOM	2294	N	HIS	A	316	36.285	83.196	22.677	1.00	45.86	A	N
ATOM	2295	CA	HIS	A	316	37.441	82.318	22.575	1.00	45.81	A	C
ATOM	2296	CB	HIS	A	316	37.063	80.939	23.088	1.00	45.57	A	C
ATOM	2297	CG	HIS	A	316	36.250	80.976	24.335	1.00	45.55	A	C
ATOM	2298	CD2	HIS	A	316	34.910	80.989	24.522	1.00	47.00	A	C
ATOM	2299	ND1	HIS	A	316	36.815	81.053	25.589	1.00	47.29	A	N
ATOM	2300	CE1	HIS	A	316	35.858	81.110	26.496	1.00	48.39	A	C
ATOM	2301	NE2	HIS	A	316	34.691	81.074	25.875	1.00	47.67	A	N
ATOM	2302	C	HIS	A	316	37.977	82.192	21.159	1.00	46.68	A	C
ATOM	2303	O	HIS	A	316	37.659	81.243	20.431	1.00	45.89	A	O
ATOM	2304	N	PRO	A	317	38.783	83.168	20.738	1.00	47.98	A	N
ATOM	2305	CD	PRO	A	317	39.087	84.460	21.381	1.00	48.10	A	C
ATOM	2306	CA	PRO	A	317	39.344	83.099	19.387	1.00	47.06	A	C
ATOM	2307	CB	PRO	A	317	40.026	84.463	19.225	1.00	47.48	A	C
ATOM	2308	CG	PRO	A	317	40.328	84.881	20.640	1.00	48.78	A	C
ATOM	2309	C	PRO	A	317	40.309	81.915	19.258	1.00	47.51	A	C
ATOM	2310	O	PRO	A	317	40.572	81.454	18.156	1.00	47.55	A	O
ATOM	2311	N	GLU	A	318	40.820	81.426	20.387	1.00	48.27	A	N
ATOM	2312	CA	GLU	A	318	41.729	80.290	20.360	1.00	48.57	A	C
ATOM	2313	CB	GLU	A	318	42.221	79.939	21.769	1.00	52.43	A	C
ATOM	2314	CG	GLU	A	318	43.743	80.078	21.990	1.00	55.62	A	C
ATOM	2315	CD	GLU	A	318	44.161	81.504	22.354	1.00	58.79	A	C
ATOM	2316	OE1	GLU	A	318	43.977	82.419	21.500	1.00	59.93	A	O
ATOM	2317	OE2	GLU	A	318	44.670	81.703	23.492	1.00	58.56	A	O
ATOM	2318	C	GLU	A	318	40.998	79.083	19.774	1.00	48.02	A	C
ATOM	2319	O	GLU	A	318	41.549	78.329	18.967	1.00	49.76	A	O
ATOM	2320	N	VAL	A	319	39.743	78.910	20.178	1.00	46.13	A	N
ATOM	2321	CA	VAL	A	319	38.922	77.795	19.700	1.00	43.43	A	C
ATOM	2322	CB	VAL	A	319	37.613	77.698	20.459	1.00	42.09	A	C

228/514

Figure 3

ATOM	2323	CG1	VAL	A	319	36.861	76.464	19.997	1.00	42.42	A	C
ATOM	2324	CG2	VAL	A	319	37.881	77.668	21.932	1.00	42.28	A	C
ATOM	2325	C	VAL	A	319	38.546	77.939	18.234	1.00	43.25	A	C
ATOM	2326	O	VAL	A	319	38.519	76.961	17.480	1.00	43.49	A	O
ATOM	2327	N	THR	A	320	38.217	79.170	17.863	1.00	41.43	A	N
ATOM	2328	CA	THR	A	320	37.832	79.505	16.511	1.00	40.43	A	C
ATOM	2329	CB	THR	A	320	37.630	81.044	16.400	1.00	40.48	A	C
ATOM	2330	OG1	THR	A	320	36.538	81.440	17.234	1.00	41.79	A	O
ATOM	2331	CG2	THR	A	320	37.325	81.464	14.980	1.00	42.62	A	C
ATOM	2332	C	THR	A	320	38.914	79.024	15.540	1.00	40.64	A	C
ATOM	2333	O	THR	A	320	38.642	78.270	14.596	1.00	39.90	A	O
ATOM	2334	N	ALA	A	321	40.149	79.445	15.806	1.00	41.45	A	N
ATOM	2335	CA	ALA	A	321	41.317	79.084	14.991	1.00	39.93	A	C
ATOM	2336	CB	ALA	A	321	42.589	79.625	15.644	1.00	41.34	A	C
ATOM	2337	C	ALA	A	321	41.455	77.581	14.761	1.00	38.53	A	C
ATOM	2338	O	ALA	A	321	41.658	77.156	13.630	1.00	38.50	A	O
ATOM	2339	N	LYS	A	322	41.370	76.796	15.835	1.00	37.07	A	N
ATOM	2340	CA	LYS	A	322	41.467	75.361	15.715	1.00	35.90	A	C
ATOM	2341	CB	LYS	A	322	41.417	74.686	17.085	1.00	37.24	A	C
ATOM	2342	CG	LYS	A	322	42.641	74.923	17.989	1.00	40.85	A	C
ATOM	2343	CD	LYS	A	322	42.625	74.013	19.232	1.00	43.26	A	C
ATOM	2344	CE	LYS	A	322	43.682	74.405	20.264	1.00	44.61	A	C
ATOM	2345	NZ	LYS	A	322	43.624	73.552	21.490	1.00	46.77	A	N
ATOM	2346	C	LYS	A	322	40.317	74.885	14.845	1.00	34.59	A	C
ATOM	2347	O	LYS	A	322	40.546	74.239	13.831	1.00	35.31	A	O
ATOM	2348	N	VAL	A	323	39.080	75.212	15.205	1.00	33.80	A	N
ATOM	2349	CA	VAL	A	323	37.958	74.781	14.378	1.00	32.64	A	C
ATOM	2350	CB	VAL	A	323	36.612	75.392	14.809	1.00	31.01	A	C
ATOM	2351	CG1	VAL	A	323	35.524	74.929	13.851	1.00	28.67	A	C
ATOM	2352	CG2	VAL	A	323	36.264	74.967	16.230	1.00	31.27	A	C
ATOM	2353	C	VAL	A	323	38.187	75.162	12.917	1.00	33.77	A	C
ATOM	2354	O	VAL	A	323	37.854	74.386	12.035	1.00	33.70	A	O
ATOM	2355	N	GLN	A	324	38.735	76.342	12.642	1.00	36.25	A	N
ATOM	2356	CA	GLN	A	324	38.962	76.705	11.251	1.00	38.23	A	C
ATOM	2357	CB	GLN	A	324	39.286	78.187	11.122	1.00	39.04	A	C
ATOM	2358	CG	GLN	A	324	38.034	79.038	11.116	1.00	40.83	A	C
ATOM	2359	CD	GLN	A	324	38.288	80.480	10.749	1.00	41.94	A	C
ATOM	2360	OE1	GLN	A	324	37.444	81.119	10.125	1.00	41.29	A	O
ATOM	2361	NE2	GLN	A	324	39.446	81.010	11.151	1.00	42.60	A	N
ATOM	2362	C	GLN	A	324	40.040	75.865	10.600	1.00	40.23	A	C
ATOM	2363	O	GLN	A	324	39.914	75.495	9.434	1.00	40.01	A	O
ATOM	2364	N	GLU	A	325	41.102	75.565	11.348	1.00	43.24	A	N
ATOM	2365	CA	GLU	A	325	42.194	74.727	10.832	1.00	46.06	A	C
ATOM	2366	CB	GLU	A	325	43.260	74.454	11.915	1.00	49.42	A	C
ATOM	2367	CG	GLU	A	325	44.089	75.662	12.399	1.00	55.36	A	C
ATOM	2368	CD	GLU	A	325	44.912	75.379	13.695	1.00	58.90	A	C
ATOM	2369	OE1	GLU	A	325	45.603	76.316	14.181	1.00	60.38	A	O
ATOM	2370	OE2	GLU	A	325	44.867	74.235	14.227	1.00	59.04	A	O
ATOM	2371	C	GLU	A	325	41.581	73.390	10.398	1.00	45.72	A	C
ATOM	2372	O	GLU	A	325	41.855	72.905	9.293	1.00	46.02	A	O
ATOM	2373	N	GLU	A	326	40.745	72.820	11.273	1.00	44.89	A	N
ATOM	2374	CA	GLU	A	326	40.075	71.546	11.025	1.00	43.50	A	C
ATOM	2375	CB	GLU	A	326	39.115	71.210	12.184	1.00	43.40	A	C
ATOM	2376	CG	GLU	A	326	38.534	69.789	12.189	1.00	45.19	A	C
ATOM	2377	CD	GLU	A	326	38.950	68.970	13.414	1.00	48.03	A	C
ATOM	2378	OE1	GLU	A	326	40.161	68.687	13.573	1.00	50.38	A	O
ATOM	2379	OE2	GLU	A	326	38.073	68.602	14.233	1.00	48.48	A	O
ATOM	2380	C	GLU	A	326	39.316	71.622	9.708	1.00	42.87	A	C
ATOM	2381	O	GLU	A	326	39.354	70.685	8.906	1.00	43.29	A	O
ATOM	2382	N	ILE	A	327	38.638	72.735	9.457	1.00	42.42	A	N
ATOM	2383	CA	ILE	A	327	37.908	72.841	8.195	1.00	41.33	A	C
ATOM	2384	CB	ILE	A	327	36.992	74.084	8.147	1.00	40.36	A	C
ATOM	2385	CG2	ILE	A	327	36.228	74.095	6.840	1.00	39.21	A	C
ATOM	2386	CG1	ILE	A	327	36.008	74.052	9.333	1.00	39.36	A	C
ATOM	2387	CD1	ILE	A	327	35.133	75.283	9.465	1.00	36.49	A	C
ATOM	2388	C	ILE	A	327	38.904	72.902	7.041	1.00	41.97	A	C
ATOM	2389	O	ILE	A	327	38.820	72.101	6.118	1.00	41.93	A	O
ATOM	2390	N	GLU	A	328	39.851	73.837	7.105	1.00	42.25	A	N
ATOM	2391	CA	GLU	A	328	40.877	73.982	6.067	1.00	45.01	A	C
ATOM	2392	CB	GLU	A	328	42.009	74.892	6.557	1.00	48.44	A	C
ATOM	2393	CG	GLU	A	328	41.917	76.338	6.106	1.00	55.87	A	C
ATOM	2394	CD	GLU	A	328	42.120	76.486	4.610	1.00	61.01	A	C
ATOM	2395	OE1	GLU	A	328	42.176	77.655	4.125	1.00	64.29	A	O
ATOM	2396	OE2	GLU	A	328	42.224	75.438	3.913	1.00	61.47	A	O
ATOM	2397	C	GLU	A	328	41.475	72.631	5.682	1.00	43.86	A	C

Figure 3

ATOM	2398	O	GLU	A	328	41.546	72.277	4.507	1.00	44.24	A	O
ATOM	2399	N	ARG	A	329	41.904	71.877	6.686	1.00	43.24	A	N
ATOM	2400	CA	ARG	A	329	42.517	70.572	6.467	1.00	42.88	A	C
ATOM	2401	CB	ARG	A	329	43.143	70.078	7.781	1.00	43.61	A	C
ATOM	2402	CG	ARG	A	329	43.875	68.737	7.698	1.00	43.94	A	C
ATOM	2403	CD	ARG	A	329	44.659	68.461	8.979	1.00	44.33	A	C
ATOM	2404	NE	ARG	A	329	43.794	68.152	10.118	1.00	45.26	A	N
ATOM	2405	CZ	ARG	A	329	42.975	67.102	10.176	1.00	46.89	A	C
ATOM	2406	NH1	ARG	A	329	42.227	66.891	11.261	1.00	45.83	A	N
ATOM	2407	NH2	ARG	A	329	42.909	66.262	9.145	1.00	46.09	A	N
ATOM	2408	C	ARG	A	329	41.578	69.505	5.908	1.00	42.14	A	C
ATOM	2409	O	ARG	A	329	41.979	68.724	5.045	1.00	43.05	A	O
ATOM	2410	N	VAL	A	330	40.334	69.478	6.385	1.00	42.36	A	N
ATOM	2411	CA	VAL	A	330	39.362	68.464	5.950	1.00	41.94	A	C
ATOM	2412	CB	VAL	A	330	38.425	68.035	7.085	1.00	40.17	A	C
ATOM	2413	CG1	VAL	A	330	37.532	66.902	6.605	1.00	38.75	A	C
ATOM	2414	CG2	VAL	A	330	39.220	67.621	8.286	1.00	39.68	A	C
ATOM	2415	C	VAL	A	330	38.445	68.805	4.788	1.00	43.49	A	C
ATOM	2416	O	VAL	A	330	38.131	67.946	3.958	1.00	44.61	A	O
ATOM	2417	N	ILE	A	331	37.980	70.042	4.750	1.00	43.88	A	N
ATOM	2418	CA	ILE	A	331	37.074	70.485	3.701	1.00	44.17	A	C
ATOM	2419	CB	ILE	A	331	35.687	70.859	4.327	1.00	40.75	A	C
ATOM	2420	CG2	ILE	A	331	34.681	71.170	3.243	1.00	43.00	A	C
ATOM	2421	CG1	ILE	A	331	35.149	69.687	5.139	1.00	36.78	A	C
ATOM	2422	CD1	ILE	A	331	33.998	70.024	6.034	1.00	31.22	A	C
ATOM	2423	C	ILE	A	331	37.745	71.708	3.089	1.00	46.37	A	C
ATOM	2424	O	ILE	A	331	37.988	72.688	3.778	1.00	48.30	A	O
ATOM	2425	N	GLY	A	332	38.071	71.657	1.810	1.00	48.54	A	N
ATOM	2426	CA	GLY	A	332	38.724	72.812	1.221	1.00	53.22	A	C
ATOM	2427	C	GLY	A	332	37.861	74.065	1.226	1.00	56.20	A	C
ATOM	2428	O	GLY	A	332	36.691	74.009	1.600	1.00	56.08	A	O
ATOM	2429	N	ARG	A	333	38.432	75.202	0.828	1.00	59.38	A	N
ATOM	2430	CA	ARG	A	333	37.657	76.437	0.769	1.00	61.62	A	N
ATOM	2431	CB	ARG	A	333	38.566	77.677	0.771	1.00	64.51	A	C
ATOM	2432	CG	ARG	A	333	38.555	78.450	2.095	1.00	69.62	A	C
ATOM	2433	CD	ARG	A	333	39.250	79.817	1.994	1.00	75.15	A	C
ATOM	2434	NE	ARG	A	333	40.723	79.786	2.044	1.00	80.35	A	N
ATOM	2435	CZ	ARG	A	333	41.524	79.634	0.988	1.00	82.75	A	C
ATOM	2436	NH1	ARG	A	333	41.006	79.485	-0.226	1.00	83.49	A	N
ATOM	2437	NH2	ARG	A	333	42.845	79.683	1.144	1.00	84.43	A	N
ATOM	2438	C	ARG	A	333	36.815	76.405	-0.504	1.00	61.80	A	C
ATOM	2439	O	ARG	A	333	36.276	77.424	-0.934	1.00	62.72	A	O
ATOM	2440	N	ASN	A	334	36.710	75.219	-1.099	1.00	61.66	A	N
ATOM	2441	CA	ASN	A	334	35.925	75.028	-2.304	1.00	61.88	A	C
ATOM	2442	CB	ASN	A	334	36.706	74.176	-3.318	1.00	62.61	A	C
ATOM	2443	CG	ASN	A	334	37.789	74.984	-4.049	1.00	63.77	A	C
ATOM	2444	OD1	ASN	A	334	38.566	75.718	-3.425	1.00	62.52	A	O
ATOM	2445	ND2	ASN	A	334	37.838	74.851	-5.374	1.00	64.68	A	N
ATOM	2446	C	ASN	A	334	34.567	74.405	-1.977	1.00	60.68	A	C
ATOM	2447	O	ASN	A	334	33.614	75.137	-1.690	1.00	62.79	A	O
ATOM	2448	N	ARG	A	335	34.468	73.074	-1.979	1.00	58.13	A	N
ATOM	2449	CA	ARG	A	335	33.179	72.398	-1.706	1.00	54.45	A	C
ATOM	2450	CB	ARG	A	335	33.358	70.880	-1.711	1.00	53.78	A	C
ATOM	2451	CG	ARG	A	335	33.782	70.287	-0.369	1.00	53.57	A	C
ATOM	2452	CD	ARG	A	335	33.276	68.848	-0.246	1.00	53.99	A	C
ATOM	2453	NE	ARG	A	335	33.604	68.187	1.023	1.00	54.75	A	N
ATOM	2454	CZ	ARG	A	335	34.801	67.701	1.345	1.00	56.49	A	C
ATOM	2455	NH1	ARG	A	335	35.824	67.791	0.506	1.00	57.63	A	N
ATOM	2456	NH2	ARG	A	335	34.967	67.092	2.504	1.00	56.10	A	N
ATOM	2457	C	ARG	A	335	32.474	72.795	-0.403	1.00	53.69	A	C
ATOM	2458	O	ARG	A	335	33.049	73.451	0.464	1.00	53.82	A	O
ATOM	2459	N	SER	A	336	31.215	72.380	-0.272	1.00	50.08	A	N
ATOM	2460	CA	SER	A	336	30.426	72.684	0.924	1.00	46.69	A	C
ATOM	2461	CB	SER	A	336	28.964	73.016	0.550	1.00	47.66	A	C
ATOM	2462	OG	SER	A	336	28.648	72.640	-0.785	1.00	46.97	A	O
ATOM	2463	C	SER	A	336	30.444	71.541	1.938	1.00	43.96	A	C
ATOM	2464	O	SER	A	336	30.358	70.361	1.576	1.00	43.25	A	O
ATOM	2465	N	PRO	A	337	30.539	71.882	3.231	1.00	40.68	A	N
ATOM	2466	CD	PRO	A	337	30.544	73.224	3.834	1.00	38.37	A	C
ATOM	2467	CA	PRO	A	337	30.566	70.848	4.264	1.00	37.15	A	C
ATOM	2468	CB	PRO	A	337	30.519	71.652	5.555	1.00	36.50	A	C
ATOM	2469	CG	PRO	A	337	31.168	72.947	5.178	1.00	37.61	A	C
ATOM	2470	C	PRO	A	337	29.390	69.896	4.137	1.00	37.46	A	C
ATOM	2471	O	PRO	A	337	28.338	70.249	3.602	1.00	38.01	A	O
ATOM	2472	N	CYS	A	338	29.584	68.681	4.629	1.00	36.90	A	N

Figure 3

ATOM	2473	CA	CYS	A	338	28.545	67.668	4.601	1.00	37.92	A	C
ATOM	2474	CB	CYS	A	338	28.666	66.778	3.371	1.00	40.62	A	C
ATOM	2475	SG	CYS	A	338	29.659	65.296	3.669	1.00	46.61	A	S
ATOM	2476	C	CYS	A	338	28.744	66.820	5.840	1.00	37.37	A	C
ATOM	2477	O	CYS	A	338	29.844	66.754	6.400	1.00	35.85	A	O
ATOM	2478	N	MET	A	339	27.670	66.163	6.250	1.00	37.63	A	N
ATOM	2479	CA	MET	A	339	27.686	65.329	7.434	1.00	38.05	A	C
ATOM	2480	CB	MET	A	339	26.366	64.576	7.553	1.00	36.86	A	C
ATOM	2481	CG	MET	A	339	25.283	65.424	8.153	1.00	35.00	A	C
ATOM	2482	SD	MET	A	339	25.993	66.712	9.205	1.00	35.24	A	S
ATOM	2483	CE	MET	A	339	26.191	65.778	10.804	1.00	32.88	A	C
ATOM	2484	C	MET	A	339	28.839	64.345	7.537	1.00	40.12	A	C
ATOM	2485	O	MET	A	339	29.406	64.137	8.616	1.00	40.08	A	O
ATOM	2486	N	GLN	A	340	29.172	63.721	6.417	1.00	42.67	A	N
ATOM	2487	CA	GLN	A	340	30.246	62.760	6.418	1.00	44.01	A	C
ATOM	2488	CB	GLN	A	340	30.453	62.205	5.011	1.00	47.22	A	C
ATOM	2489	CG	GLN	A	340	29.679	60.927	4.697	1.00	52.42	A	C
ATOM	2490	CD	GLN	A	340	29.979	60.429	3.279	1.00	56.61	A	C
ATOM	2491	OE1	GLN	A	340	31.151	60.354	2.876	1.00	57.82	A	O
ATOM	2492	NE2	GLN	A	340	28.925	60.088	2.517	1.00	59.25	A	N
ATOM	2493	C	GLN	A	340	31.545	63.364	6.948	1.00	42.79	A	C
ATOM	2494	O	GLN	A	340	32.318	62.668	7.587	1.00	42.67	A	O
ATOM	2495	N	ASP	A	341	31.774	64.654	6.726	1.00	41.47	A	N
ATOM	2496	CA	ASP	A	341	33.011	65.266	7.187	1.00	42.00	A	C
ATOM	2497	CB	ASP	A	341	33.266	66.566	6.446	1.00	44.99	A	C
ATOM	2498	CG	ASP	A	341	33.413	66.349	4.971	1.00	50.47	A	C
ATOM	2499	OD1	ASP	A	341	34.153	65.399	4.587	1.00	53.34	A	O
ATOM	2500	OD2	ASP	A	341	32.798	67.112	4.180	1.00	53.99	A	O
ATOM	2501	C	ASP	A	341	33.115	65.523	8.673	1.00	41.24	A	C
ATOM	2502	O	ASP	A	341	34.129	66.026	9.150	1.00	39.19	A	O
ATOM	2503	N	ARG	A	342	32.071	65.174	9.403	1.00	41.64	A	N
ATOM	2504	CA	ARG	A	342	32.070	65.399	10.825	1.00	42.50	A	C
ATOM	2505	CB	ARG	A	342	30.646	65.332	11.376	1.00	40.83	A	C
ATOM	2506	CG	ARG	A	342	30.582	65.517	12.880	1.00	38.16	A	C
ATOM	2507	CD	ARG	A	342	29.201	65.855	13.371	1.00	37.30	A	C
ATOM	2508	NE	ARG	A	342	28.256	64.755	13.334	1.00	37.41	A	N
ATOM	2509	CZ	ARG	A	342	27.109	64.772	14.005	1.00	40.06	A	C
ATOM	2510	NH1	ARG	A	342	26.790	65.820	14.758	1.00	41.00	A	N
ATOM	2511	NH2	ARG	A	342	26.263	63.758	13.909	1.00	40.86	A	N
ATOM	2512	C	ARG	A	342	32.960	64.417	11.573	1.00	44.23	A	C
ATOM	2513	O	ARG	A	342	33.824	64.829	12.363	1.00	46.23	A	O
ATOM	2514	N	SER	A	343	32.768	63.120	11.337	1.00	44.73	A	N
ATOM	2515	CA	SER	A	343	33.578	62.118	12.038	1.00	44.01	A	C
ATOM	2516	CB	SER	A	343	33.205	60.683	11.606	1.00	46.22	A	C
ATOM	2517	OG	SER	A	343	33.481	60.421	10.240	1.00	49.74	A	O
ATOM	2518	C	SER	A	343	35.072	62.366	11.854	1.00	42.25	A	C
ATOM	2519	O	SER	A	343	35.879	61.895	12.652	1.00	43.04	A	O
ATOM	2520	N	HIS	A	344	35.439	63.130	10.829	1.00	40.88	A	N
ATOM	2521	CA	HIS	A	344	36.850	63.435	10.591	1.00	40.84	A	C
ATOM	2522	CB	HIS	A	344	37.153	63.461	9.088	1.00	45.39	A	C
ATOM	2523	CG	HIS	A	344	36.928	62.149	8.398	1.00	50.18	A	C
ATOM	2524	CD2	HIS	A	344	35.934	61.733	7.574	1.00	52.89	A	C
ATOM	2525	ND1	HIS	A	344	37.778	61.075	8.545	1.00	53.75	A	N
ATOM	2526	CE1	HIS	A	344	37.316	60.053	7.844	1.00	55.29	A	C
ATOM	2527	NE2	HIS	A	344	36.197	60.425	7.245	1.00	54.35	A	N
ATOM	2528	C	HIS	A	344	37.245	64.782	11.196	1.00	38.92	A	C
ATOM	2529	O	HIS	A	344	38.328	65.297	10.928	1.00	38.05	A	O
ATOM	2530	N	MET	A	345	36.364	65.360	11.999	1.00	36.77	A	N
ATOM	2531	CA	MET	A	345	36.642	66.643	12.625	1.00	35.23	A	C
ATOM	2532	CB	MET	A	345	35.833	67.736	11.956	1.00	33.70	A	C
ATOM	2533	CG	MET	A	345	36.166	67.867	10.505	1.00	32.71	A	C
ATOM	2534	SD	MET	A	345	34.955	68.796	9.597	1.00	30.40	A	S
ATOM	2535	CE	MET	A	345	35.706	70.414	9.637	1.00	27.79	A	C
ATOM	2536	C	MET	A	345	36.270	66.549	14.085	1.00	36.78	A	C
ATOM	2537	O	MET	A	345	35.250	67.071	14.522	1.00	37.96	A	O
ATOM	2538	N	PRO	A	346	37.120	65.904	14.876	1.00	36.38	A	N
ATOM	2539	CD	PRO	A	346	38.419	65.307	14.542	1.00	36.44	A	C
ATOM	2540	CA	PRO	A	346	36.832	65.752	16.296	1.00	33.50	A	C
ATOM	2541	CB	PRO	A	346	37.988	64.895	16.793	1.00	35.76	A	C
ATOM	2542	CG	PRO	A	346	38.474	64.187	15.539	1.00	37.27	A	C
ATOM	2543	C	PRO	A	346	36.713	67.050	17.065	1.00	32.61	A	C
ATOM	2544	O	PRO	A	346	35.761	67.237	17.829	1.00	33.29	A	O
ATOM	2545	N	TYR	A	347	37.674	67.944	16.878	1.00	30.27	A	N
ATOM	2546	CA	TYR	A	347	37.637	69.206	17.596	1.00	28.67	A	C
ATOM	2547	CB	TYR	A	347	38.730	70.135	17.080	1.00	28.48	A	C

231/514

Figure 3

ATOM	2548	CG	TYR	A	347	38.974	71.272	18.018	1.00	27.88	A	C
ATOM	2549	CD1	TYR	A	347	39.349	71.032	19.329	1.00	27.34	A	C
ATOM	2550	CE1	TYR	A	347	39.499	72.061	20.227	1.00	27.49	A	C
ATOM	2551	CD2	TYR	A	347	38.761	72.580	17.623	1.00	29.48	A	C
ATOM	2552	CE2	TYR	A	347	38.906	73.622	18.515	1.00	29.54	A	C
ATOM	2553	CZ	TYR	A	347	39.273	73.356	19.818	1.00	28.72	A	C
ATOM	2554	OH	TYR	A	347	39.375	74.395	20.714	1.00	30.73	A	O
ATOM	2555	C	TYR	A	347	36.277	69.838	17.384	1.00	27.88	A	C
ATOM	2556	O	TYR	A	347	35.492	69.993	18.316	1.00	27.39	A	O
ATOM	2557	N	THR	A	348	36.000	70.183	16.138	1.00	26.92	A	N
ATOM	2558	CA	THR	A	348	34.735	70.790	15.803	1.00	26.62	A	C
ATOM	2559	CB	THR	A	348	34.585	70.825	14.323	1.00	27.60	A	C
ATOM	2560	OG1	THR	A	348	35.640	71.635	13.780	1.00	29.10	A	O
ATOM	2561	CG2	THR	A	348	33.251	71.412	13.959	1.00	27.60	A	C
ATOM	2562	C	THR	A	348	33.518	70.125	16.429	1.00	26.05	A	C
ATOM	2563	O	THR	A	348	32.735	70.778	17.128	1.00	26.31	A	O
ATOM	2564	N	ASP	A	349	33.345	68.836	16.184	1.00	25.61	A	N
ATOM	2565	CA	ASP	A	349	32.216	68.157	16.771	1.00	25.56	A	C
ATOM	2566	CB	ASP	A	349	32.286	66.660	16.501	1.00	25.01	A	C
ATOM	2567	CG	ASP	A	349	31.071	65.938	17.007	1.00	28.16	A	C
ATOM	2568	OD1	ASP	A	349	30.811	66.057	18.216	1.00	32.44	A	O
ATOM	2569	OD2	ASP	A	349	30.372	65.254	16.225	1.00	28.05	A	O
ATOM	2570	C	ASP	A	349	32.209	68.437	18.270	1.00	26.34	A	C
ATOM	2571	O	ASP	A	349	31.145	68.533	18.887	1.00	27.40	A	O
ATOM	2572	N	ALA	A	350	33.384	68.586	18.871	1.00	26.49	A	N
ATOM	2573	CA	ALA	A	350	33.431	68.876	20.310	1.00	25.78	A	C
ATOM	2574	CB	ALA	A	350	34.849	68.744	20.824	1.00	28.12	A	C
ATOM	2575	C	ALA	A	350	32.908	70.284	20.589	1.00	25.64	A	C
ATOM	2576	O	ALA	A	350	32.096	70.479	21.488	1.00	24.89	A	O
ATOM	2577	N	VAL	A	351	33.376	71.256	19.812	1.00	22.52	A	N
ATOM	2578	CA	VAL	A	351	32.922	72.609	20.007	1.00	19.54	A	C
ATOM	2579	CB	VAL	A	351	33.495	73.525	18.952	1.00	20.03	A	C
ATOM	2580	CG1	VAL	A	351	32.840	74.894	19.041	1.00	20.69	A	C
ATOM	2581	CG2	VAL	A	351	35.001	73.630	19.155	1.00	20.22	A	C
ATOM	2582	C	VAL	A	351	31.402	72.649	19.983	1.00	20.13	A	C
ATOM	2583	O	VAL	A	351	30.761	73.096	20.940	1.00	19.84	A	O
ATOM	2584	N	VAL	A	352	30.814	72.150	18.905	1.00	18.45	A	N
ATOM	2585	CA	VAL	A	352	29.357	72.125	18.810	1.00	16.77	A	C
ATOM	2586	CB	VAL	A	352	28.881	71.273	17.641	1.00	16.46	A	C
ATOM	2587	CG1	VAL	A	352	27.363	71.210	17.656	1.00	16.11	A	C
ATOM	2588	CG2	VAL	A	352	29.400	71.838	16.356	1.00	15.69	A	C
ATOM	2589	C	VAL	A	352	28.715	71.540	20.081	1.00	18.89	A	C
ATOM	2590	O	VAL	A	352	27.777	72.116	20.636	1.00	19.47	A	O
ATOM	2591	N	HIS	A	353	29.214	70.391	20.529	1.00	18.61	A	N
ATOM	2592	CA	HIS	A	353	28.669	69.764	21.719	1.00	17.43	A	C
ATOM	2593	CB	HIS	A	353	29.321	68.412	21.967	1.00	18.54	A	C
ATOM	2594	CG	HIS	A	353	28.822	67.314	21.085	1.00	19.57	A	C
ATOM	2595	CD2	HIS	A	353	28.844	67.165	19.742	1.00	20.71	A	C
ATOM	2596	ND1	HIS	A	353	28.274	66.152	21.588	1.00	20.06	A	N
ATOM	2597	CE1	HIS	A	353	27.984	65.334	20.595	1.00	20.84	A	C
ATOM	2598	NE2	HIS	A	353	28.322	65.926	19.461	1.00	21.67	A	N
ATOM	2599	C	HIS	A	353	28.872	70.639	22.947	1.00	19.21	A	C
ATOM	2600	O	HIS	A	353	27.932	70.888	23.695	1.00	17.74	A	O
ATOM	2601	N	GLU	A	354	30.104	71.085	23.159	1.00	20.08	A	N
ATOM	2602	CA	GLU	A	354	30.428	71.938	24.287	1.00	21.64	A	C
ATOM	2603	CB	GLU	A	354	31.898	72.379	24.220	1.00	21.65	A	C
ATOM	2604	CG	GLU	A	354	32.391	73.250	25.388	1.00	21.96	A	C
ATOM	2605	CD	GLU	A	354	32.096	72.664	26.766	1.00	25.18	A	C
ATOM	2606	OE1	GLU	A	354	31.278	71.709	26.836	1.00	25.01	A	O
ATOM	2607	OE2	GLU	A	354	32.660	73.162	27.798	1.00	24.77	A	O
ATOM	2608	C	GLU	A	354	29.498	73.141	24.273	1.00	23.39	A	C
ATOM	2609	O	GLU	A	354	29.013	73.551	25.316	1.00	25.50	A	O
ATOM	2610	N	VAL	A	355	29.228	73.705	23.101	1.00	22.72	A	N
ATOM	2611	CA	VAL	A	355	28.317	74.839	23.052	1.00	21.11	A	C
ATOM	2612	CB	VAL	A	355	28.151	75.372	21.636	1.00	21.76	A	C
ATOM	2613	CG1	VAL	A	355	26.896	76.226	21.530	1.00	22.19	A	C
ATOM	2614	CG2	VAL	A	355	29.370	76.176	21.278	1.00	22.72	A	C
ATOM	2615	C	VAL	A	355	26.961	74.414	23.603	1.00	21.67	A	C
ATOM	2616	O	VAL	A	355	26.418	75.080	24.465	1.00	22.83	A	O
ATOM	2617	N	GLN	A	356	26.423	73.296	23.138	1.00	20.18	A	N
ATOM	2618	CA	GLN	A	356	25.150	72.859	23.652	1.00	18.80	A	C
ATOM	2619	CB	GLN	A	356	24.687	71.611	22.930	1.00	18.52	A	C
ATOM	2620	CG	GLN	A	356	24.187	71.928	21.573	1.00	20.04	A	C
ATOM	2621	CD	GLN	A	356	23.677	70.733	20.808	1.00	22.08	A	C
ATOM	2622	OE1	GLN	A	356	24.439	70.032	20.136	1.00	22.27	A	O

232/514

Figure 3

ATOM	2623	NE2	GLN	A	356	22.376	70.484	20.910	1.00	21.73	A	N
ATOM	2624	C	GLN	A	356	25.175	72.611	25.148	1.00	18.78	A	C
ATOM	2625	O	GLN	A	356	24.316	73.100	25.861	1.00	20.56	A	O
ATOM	2626	N	ARG	A	357	26.166	71.885	25.647	1.00	20.09	A	N
ATOM	2627	CA	ARG	A	357	26.214	71.591	27.081	1.00	19.73	A	C
ATOM	2628	CB	ARG	A	357	27.345	70.622	27.387	1.00	19.64	A	C
ATOM	2629	CG	ARG	A	357	27.394	70.177	28.833	1.00	19.66	A	C
ATOM	2630	CD	ARG	A	357	28.800	69.761	29.191	1.00	18.65	A	C
ATOM	2631	NE	ARG	A	357	29.650	70.926	29.097	1.00	19.20	A	N
ATOM	2632	CZ	ARG	A	357	29.760	71.829	30.061	1.00	21.64	A	C
ATOM	2633	NH1	ARG	A	357	30.551	72.891	29.895	1.00	22.89	A	N
ATOM	2634	NH2	ARG	A	357	29.107	71.645	31.206	1.00	19.95	A	N
ATOM	2635	C	ARG	A	357	26.381	72.799	27.992	1.00	21.42	A	C
ATOM	2636	O	ARG	A	357	25.724	72.903	29.020	1.00	21.18	A	O
ATOM	2637	N	TYR	A	358	27.286	73.692	27.636	1.00	22.29	A	N
ATOM	2638	CA	TYR	A	358	27.523	74.856	28.455	1.00	24.34	A	C
ATOM	2639	CB	TYR	A	358	28.617	75.699	27.860	1.00	25.29	A	C
ATOM	2640	CG	TYR	A	358	28.753	77.064	28.485	1.00	27.17	A	C
ATOM	2641	CD1	TYR	A	358	28.256	78.202	27.847	1.00	28.53	A	C
ATOM	2642	CE1	TYR	A	358	28.533	79.468	28.337	1.00	28.98	A	C
ATOM	2643	CD2	TYR	A	358	29.505	77.231	29.645	1.00	28.26	A	C
ATOM	2644	CE2	TYR	A	358	29.790	78.492	30.147	1.00	28.43	A	C
ATOM	2645	CZ	TYR	A	358	29.314	79.609	29.481	1.00	29.15	A	C
ATOM	2646	OH	TYR	A	358	29.702	80.868	29.889	1.00	29.63	A	O
ATOM	2647	C	TYR	A	358	26.348	75.761	28.651	1.00	25.55	A	C
ATOM	2648	O	TYR	A	358	26.027	76.147	29.778	1.00	25.62	A	O
ATOM	2649	N	ILE	A	359	25.720	76.142	27.549	1.00	24.64	A	N
ATOM	2650	CA	ILE	A	359	24.610	77.071	27.642	1.00	25.41	A	C
ATOM	2651	CB	ILE	A	359	24.320	77.729	26.300	1.00	22.79	A	C
ATOM	2652	CG2	ILE	A	359	25.627	78.042	25.610	1.00	23.04	A	C
ATOM	2653	CG1	ILE	A	359	23.481	76.836	25.424	1.00	20.61	A	C
ATOM	2654	CD1	ILE	A	359	23.318	77.391	24.035	1.00	18.60	A	C
ATOM	2655	C	ILE	A	359	23.346	76.481	28.205	1.00	27.76	A	C
ATOM	2656	O	ILE	A	359	22.563	77.177	28.848	1.00	29.12	A	O
ATOM	2657	N	ASP	A	360	23.123	75.204	27.973	1.00	27.84	A	N
ATOM	2658	CA	ASP	A	360	21.942	74.605	28.550	1.00	29.50	A	C
ATOM	2659	CB	ASP	A	360	22.105	74.478	30.052	1.00	31.21	A	C
ATOM	2660	CG	ASP	A	360	20.927	73.829	30.673	1.00	35.40	A	C
ATOM	2661	OD1	ASP	A	360	20.822	73.840	31.934	1.00	33.66	A	O
ATOM	2662	OD2	ASP	A	360	20.102	73.299	29.866	1.00	38.10	A	O
ATOM	2663	C	ASP	A	360	20.670	75.380	28.301	1.00	27.99	A	C
ATOM	2664	O	ASP	A	360	20.145	76.040	29.198	1.00	28.65	A	O
ATOM	2665	N	LEU	A	361	20.137	75.255	27.104	1.00	29.67	A	N
ATOM	2666	CA	LEU	A	361	18.918	75.970	26.770	1.00	29.28	A	C
ATOM	2667	CB	LEU	A	361	18.693	75.864	25.278	1.00	27.03	A	C
ATOM	2668	CG	LEU	A	361	19.127	77.130	24.547	1.00	27.15	A	C
ATOM	2669	CD1	LEU	A	361	20.434	77.689	25.067	1.00	25.92	A	C
ATOM	2670	CD2	LEU	A	361	19.220	76.776	23.093	1.00	28.75	A	C
ATOM	2671	C	LEU	A	361	17.638	75.597	27.516	1.00	29.93	A	C
ATOM	2672	O	LEU	A	361	16.814	76.461	27.797	1.00	30.77	A	O
ATOM	2673	N	LEU	A	362	17.466	74.323	27.840	1.00	29.09	A	N
ATOM	2674	CA	LEU	A	362	16.262	73.925	28.536	1.00	27.39	A	C
ATOM	2675	CB	LEU	A	362	15.469	72.960	27.665	1.00	23.92	A	C
ATOM	2676	CG	LEU	A	362	15.223	73.615	26.302	1.00	23.09	A	C
ATOM	2677	CD1	LEU	A	362	14.448	72.698	25.392	1.00	21.33	A	C
ATOM	2678	CD2	LEU	A	362	14.472	74.907	26.496	1.00	23.43	A	C
ATOM	2679	C	LEU	A	362	16.618	73.302	29.874	1.00	30.19	A	C
ATOM	2680	O	LEU	A	362	16.535	72.090	30.047	1.00	31.38	A	O
ATOM	2681	N	PRO	A	363	16.997	74.138	30.853	1.00	30.58	A	N
ATOM	2682	CD	PRO	A	363	16.856	75.601	30.840	1.00	30.75	A	C
ATOM	2683	CA	PRO	A	363	17.385	73.685	32.190	1.00	30.29	A	C
ATOM	2684	CB	PRO	A	363	17.198	74.928	33.031	1.00	31.22	A	C
ATOM	2685	CG	PRO	A	363	17.611	75.995	32.105	1.00	30.67	A	C
ATOM	2686	C	PRO	A	363	16.580	72.507	32.685	1.00	31.69	A	C
ATOM	2687	O	PRO	A	363	17.084	71.633	33.394	1.00	33.71	A	O
ATOM	2688	N	THR	A	364	15.307	72.509	32.341	1.00	32.43	A	N
ATOM	2689	CA	THR	A	364	14.413	71.421	32.692	1.00	32.78	A	C
ATOM	2690	CB	THR	A	364	13.287	71.890	33.590	1.00	33.76	A	C
ATOM	2691	OG1	THR	A	364	12.238	72.440	32.795	1.00	35.03	A	O
ATOM	2692	CG2	THR	A	364	13.788	72.946	34.550	1.00	32.31	A	C
ATOM	2693	C	THR	A	364	13.916	71.271	31.293	1.00	33.82	A	C
ATOM	2694	O	THR	A	364	13.687	72.279	30.620	1.00	37.27	A	O
ATOM	2695	N	SER	A	365	13.773	70.054	30.810	1.00	34.56	A	N
ATOM	2696	CA	SER	A	365	13.354	69.934	29.424	1.00	33.37	A	C
ATOM	2697	CB	SER	A	365	13.390	68.478	28.968	1.00	34.02	A	C

233/514

Figure 3

ATOM	2698	OG	SER	A	365	12.557	67.670	29.774	1.00	37.89	A	O
ATOM	2699	C	SER	A	365	11.960	70.472	29.270	1.00	32.14	A	C
ATOM	2700	O	SER	A	365	11.732	71.671	29.100	1.00	32.78	A	O
ATOM	2701	N	LEU	A	366	11.025	69.550	29.303	1.00	31.62	A	N
ATOM	2702	CA	LEU	A	366	9.664	69.907	29.177	1.00	30.94	A	C
ATOM	2703	CB	LEU	A	366	9.166	69.597	27.788	1.00	29.91	A	C
ATOM	2704	CG	LEU	A	366	8.753	70.865	27.025	1.00	29.47	A	C
ATOM	2705	CD1	LEU	A	366	9.957	71.741	26.766	1.00	28.90	A	C
ATOM	2706	CD2	LEU	A	366	8.096	70.474	25.709	1.00	28.22	A	C
ATOM	2707	C	LEU	A	366	8.963	69.079	30.205	1.00	32.79	A	C
ATOM	2708	O	LEU	A	366	9.387	67.987	30.552	1.00	33.64	A	O
ATOM	2709	N	PRO	A	367	7.874	69.603	30.733	1.00	33.65	A	N
ATOM	2710	CD	PRO	A	367	7.280	70.930	30.501	1.00	34.99	A	C
ATOM	2711	CA	PRO	A	367	7.141	68.858	31.745	1.00	34.24	A	C
ATOM	2712	CB	PRO	A	367	5.914	69.724	31.956	1.00	35.24	A	C
ATOM	2713	CG	PRO	A	367	6.481	71.135	31.763	1.00	36.37	A	C
ATOM	2714	C	PRO	A	367	6.822	67.442	31.282	1.00	34.46	A	C
ATOM	2715	O	PRO	A	367	6.531	67.206	30.109	1.00	35.00	A	O
ATOM	2716	N	HIS	A	368	6.939	66.490	32.197	1.00	35.22	A	N
ATOM	2717	CA	HIS	A	368	6.618	65.095	31.908	1.00	37.51	A	C
ATOM	2718	CB	HIS	A	368	7.797	64.174	32.187	1.00	38.53	A	C
ATOM	2719	CG	HIS	A	368	8.782	64.085	31.066	1.00	38.03	A	C
ATOM	2720	CD2	HIS	A	368	9.902	64.798	30.814	1.00	38.80	A	C
ATOM	2721	ND1	HIS	A	368	8.668	63.168	30.048	1.00	38.12	A	N
ATOM	2722	CE1	HIS	A	368	9.683	63.318	29.212	1.00	39.53	A	C
ATOM	2723	NE2	HIS	A	368	10.443	64.300	29.654	1.00	38.69	A	N
ATOM	2724	C	HIS	A	368	5.516	64.733	32.871	1.00	39.31	A	C
ATOM	2725	O	HIS	A	368	5.136	65.541	33.719	1.00	38.83	A	O
ATOM	2726	N	ALA	A	369	5.026	63.504	32.765	1.00	42.56	A	N
ATOM	2727	CA	ALA	A	369	3.956	63.038	33.642	1.00	45.35	A	C
ATOM	2728	CB	ALA	A	369	2.646	63.679	33.228	1.00	46.72	A	C
ATOM	2729	C	ALA	A	369	3.809	61.523	33.614	1.00	45.82	A	C
ATOM	2730	O	ALA	A	369	3.492	60.943	32.578	1.00	46.68	A	O
ATOM	2731	N	VAL	A	370	4.010	60.879	34.754	1.00	47.03	A	N
ATOM	2732	CA	VAL	A	370	3.886	59.437	34.775	1.00	48.75	A	C
ATOM	2733	CB	VAL	A	370	3.969	58.900	36.182	1.00	49.11	A	C
ATOM	2734	CG1	VAL	A	370	5.367	59.138	36.712	1.00	49.22	A	C
ATOM	2735	CG2	VAL	A	370	2.949	59.595	37.050	1.00	51.71	A	C
ATOM	2736	C	VAL	A	370	2.613	58.953	34.094	1.00	50.84	A	C
ATOM	2737	O	VAL	A	370	1.584	59.632	34.057	1.00	50.00	A	O
ATOM	2738	N	THR	A	371	2.723	57.753	33.546	1.00	54.27	A	N
ATOM	2739	CA	THR	A	371	1.668	57.115	32.789	1.00	58.36	A	C
ATOM	2740	CB	THR	A	371	2.332	56.203	31.736	1.00	57.29	A	C
ATOM	2741	OG1	THR	A	371	1.773	56.459	30.445	1.00	58.30	A	O
ATOM	2742	CG2	THR	A	371	2.155	54.744	32.094	1.00	58.90	A	C
ATOM	2743	C	THR	A	371	0.678	56.335	33.660	1.00	61.81	A	C
ATOM	2744	O	THR	A	371	-0.464	56.106	33.256	1.00	61.94	A	O
ATOM	2745	N	CYS	A	372	1.126	55.929	34.850	1.00	66.36	A	N
ATOM	2746	CA	CYS	A	372	0.296	55.169	35.797	1.00	70.81	A	C
ATOM	2747	CB	CYS	A	372	0.105	53.724	35.300	1.00	72.43	A	C
ATOM	2748	SG	CYS	A	372	1.621	52.717	35.153	1.00	76.70	A	S
ATOM	2749	C	CYS	A	372	0.931	55.160	37.192	1.00	72.31	A	C
ATOM	2750	O	CYS	A	372	2.107	55.492	37.336	1.00	73.76	A	O
ATOM	2751	N	ASP	A	373	0.180	54.790	38.226	1.00	73.40	A	N
ATOM	2752	CA	ASP	A	373	0.760	54.773	39.579	1.00	74.50	A	C
ATOM	2753	CB	ASP	A	373	-0.248	54.209	40.593	1.00	74.83	A	C
ATOM	2754	CG	ASP	A	373	-1.519	55.047	40.691	1.00	76.03	A	C
ATOM	2755	OD1	ASP	A	373	-2.288	55.078	39.704	1.00	76.38	A	O
ATOM	2756	OD2	ASP	A	373	-1.750	55.672	41.752	1.00	75.86	A	O
ATOM	2757	C	ASP	A	373	2.039	53.924	39.576	1.00	74.47	A	C
ATOM	2758	O	ASP	A	373	2.070	52.845	38.989	1.00	74.89	A	O
ATOM	2759	N	ILE	A	374	3.096	54.413	40.213	1.00	73.54	A	N
ATOM	2760	CA	ILE	A	374	4.344	53.660	40.245	1.00	73.51	A	C
ATOM	2761	CB	ILE	A	374	5.243	54.002	39.028	1.00	72.68	A	C
ATOM	2762	CG2	ILE	A	374	5.668	55.466	39.080	1.00	69.86	A	C
ATOM	2763	CG1	ILE	A	374	6.472	53.076	39.008	1.00	72.83	A	C
ATOM	2764	CD1	ILE	A	374	6.133	51.578	38.943	1.00	72.87	A	C
ATOM	2765	C	ILE	A	374	5.168	53.864	41.510	1.00	73.93	A	C
ATOM	2766	O	ILE	A	374	5.151	54.936	42.112	1.00	74.28	A	O
ATOM	2767	N	LYS	A	375	5.878	52.816	41.917	1.00	73.55	A	N
ATOM	2768	CA	LYS	A	375	6.727	52.873	43.099	1.00	73.14	A	C
ATOM	2769	CB	LYS	A	375	6.723	51.518	43.828	1.00	74.76	A	C
ATOM	2770	CG	LYS	A	375	7.382	51.539	45.212	1.00	75.55	A	C
ATOM	2771	CD	LYS	A	375	6.504	50.867	46.287	1.00	76.43	A	C
ATOM	2772	CE	LYS	A	375	7.127	49.578	46.843	1.00	77.31	A	C

Figure 3

ATOM	2773	NZ	LYS	A	375	7.303	48.520	45.798	1.00	77.65	A	N
ATOM	2774	C	LYS	A	375	8.118	53.216	42.592	1.00	71.80	A	C
ATOM	2775	O	LYS	A	375	8.832	52.373	42.045	1.00	72.13	A	O
ATOM	2776	N	PHE	A	376	8.491	54.473	42.754	1.00	69.44	A	N
ATOM	2777	CA	PHE	A	376	9.779	54.925	42.286	1.00	66.83	A	C
ATOM	2778	CB	PHE	A	376	9.597	56.201	41.482	1.00	64.93	A	C
ATOM	2779	CG	PHE	A	376	10.864	56.764	40.958	1.00	63.16	A	C
ATOM	2780	CD1	PHE	A	376	11.613	56.071	40.018	1.00	63.22	A	C
ATOM	2781	CD2	PHE	A	376	11.309	58.000	41.396	1.00	62.33	A	C
ATOM	2782	CE1	PHE	A	376	12.791	56.611	39.517	1.00	63.21	A	C
ATOM	2783	CE2	PHE	A	376	12.483	58.550	40.903	1.00	62.26	A	C
ATOM	2784	CZ	PHE	A	376	13.227	57.855	39.962	1.00	62.61	A	C
ATOM	2785	C	PHE	A	376	10.674	55.177	43.477	1.00	66.75	A	C
ATOM	2786	O	PHE	A	376	10.351	55.996	44.335	1.00	66.50	A	O
ATOM	2787	N	ARG	A	377	11.791	54.464	43.544	1.00	66.56	A	N
ATOM	2788	CA	ARG	A	377	12.715	54.636	44.651	1.00	66.66	A	C
ATOM	2789	CB	ARG	A	377	13.396	56.007	44.541	1.00	65.79	A	C
ATOM	2790	CG	ARG	A	377	14.213	56.218	43.250	1.00	65.17	A	C
ATOM	2791	CD	ARG	A	377	15.688	55.843	43.408	1.00	63.83	A	C
ATOM	2792	NE	ARG	A	377	16.549	57.010	43.638	1.00	60.17	A	N
ATOM	2793	CZ	ARG	A	377	17.606	57.321	42.886	1.00	58.46	A	C
ATOM	2794	NH1	ARG	A	377	17.940	56.559	41.854	1.00	56.72	A	N
ATOM	2795	NH2	ARG	A	377	18.334	58.391	43.165	1.00	56.82	A	N
ATOM	2796	C	ARG	A	377	11.950	54.515	45.975	1.00	67.61	A	C
ATOM	2797	O	ARG	A	377	12.301	55.161	46.964	1.00	66.26	A	O
ATOM	2798	N	ASN	A	378	10.904	53.683	45.969	1.00	68.43	A	N
ATOM	2799	CA	ASN	A	378	10.062	53.437	47.148	1.00	70.36	A	C
ATOM	2800	CB	ASN	A	378	10.917	52.795	48.263	1.00	73.13	A	C
ATOM	2801	CG	ASN	A	378	10.090	52.039	49.332	1.00	76.47	A	C
ATOM	2802	OD1	ASN	A	378	10.659	51.537	50.316	1.00	77.99	A	O
ATOM	2803	ND2	ASN	A	378	8.769	51.946	49.141	1.00	77.44	A	N
ATOM	2804	C	ASN	A	378	9.431	54.758	47.635	1.00	69.43	A	C
ATOM	2805	O	ASN	A	378	9.447	55.054	48.833	1.00	69.13	A	O
ATOM	2806	N	TYR	A	379	8.875	55.551	46.712	1.00	68.24	A	N
ATOM	2807	CA	TYR	A	379	8.251	56.828	47.086	1.00	67.10	A	C
ATOM	2808	CB	TYR	A	379	8.996	58.015	46.443	1.00	65.63	A	C
ATOM	2809	CG	TYR	A	379	10.148	58.536	47.284	1.00	65.34	A	C
ATOM	2810	CD1	TYR	A	379	11.480	58.259	46.942	1.00	65.53	A	C
ATOM	2811	CE1	TYR	A	379	12.544	58.702	47.744	1.00	65.75	A	C
ATOM	2812	CD2	TYR	A	379	9.907	59.269	48.446	1.00	64.24	A	C
ATOM	2813	CE2	TYR	A	379	10.955	59.713	49.249	1.00	64.92	A	C
ATOM	2814	CZ	TYR	A	379	12.269	59.428	48.900	1.00	65.93	A	C
ATOM	2815	OH	TYR	A	379	13.304	59.864	49.706	1.00	66.04	A	O
ATOM	2816	C	TYR	A	379	6.757	56.922	46.778	1.00	66.78	A	C
ATOM	2817	O	TYR	A	379	6.020	57.646	47.458	1.00	67.86	A	O
ATOM	2818	N	LEU	A	380	6.314	56.170	45.774	1.00	66.11	A	N
ATOM	2819	CA	LEU	A	380	4.910	56.157	45.358	1.00	66.42	A	C
ATOM	2820	CB	LEU	A	380	3.985	55.815	46.550	1.00	67.38	A	C
ATOM	2821	CG	LEU	A	380	2.448	55.892	46.398	1.00	69.09	A	C
ATOM	2822	CD1	LEU	A	380	1.991	54.981	45.265	1.00	67.54	A	C
ATOM	2823	CD2	LEU	A	380	1.752	55.503	47.719	1.00	69.45	A	C
ATOM	2824	C	LEU	A	380	4.496	57.487	44.716	1.00	64.57	A	C
ATOM	2825	O	LEU	A	380	4.268	58.486	45.403	1.00	64.67	A	O
ATOM	2826	N	ILE	A	381	4.420	57.484	43.385	1.00	63.06	A	N
ATOM	2827	CA	ILE	A	381	4.028	58.654	42.598	1.00	60.46	A	C
ATOM	2828	CB	ILE	A	381	5.150	59.070	41.592	1.00	58.36	A	C
ATOM	2829	CG2	ILE	A	381	4.755	60.339	40.856	1.00	57.52	A	C
ATOM	2830	CG1	ILE	A	381	6.446	59.359	42.338	1.00	57.06	A	C
ATOM	2831	CD1	ILE	A	381	7.651	59.444	41.439	1.00	56.71	A	C
ATOM	2832	C	ILE	A	381	2.758	58.294	41.815	1.00	59.27	A	C
ATOM	2833	O	ILE	A	381	2.802	57.521	40.850	1.00	59.80	A	O
ATOM	2834	N	PRO	A	382	1.610	58.858	42.221	1.00	57.81	A	N
ATOM	2835	CD	PRO	A	382	1.500	59.907	43.250	1.00	57.70	A	C
ATOM	2836	CA	PRO	A	382	0.315	58.614	41.583	1.00	57.56	A	C
ATOM	2837	CB	PRO	A	382	-0.635	59.448	42.432	1.00	57.02	A	C
ATOM	2838	CG	PRO	A	382	0.229	60.602	42.848	1.00	58.19	A	C
ATOM	2839	C	PRO	A	382	0.301	59.005	40.117	1.00	55.87	A	C
ATOM	2840	O	PRO	A	382	1.176	59.730	39.659	1.00	54.08	A	O
ATOM	2841	N	LYS	A	383	-0.695	58.515	39.389	1.00	56.59	A	N
ATOM	2842	CA	LYS	A	383	-0.837	58.798	37.964	1.00	57.99	A	C
ATOM	2843	CB	LYS	A	383	-1.875	57.857	37.351	1.00	59.23	A	C
ATOM	2844	CG	LYS	A	383	-2.116	58.119	35.877	1.00	62.82	A	C
ATOM	2845	CD	LYS	A	383	-3.091	57.122	35.248	1.00	65.11	A	C
ATOM	2846	CE	LYS	A	383	-4.526	57.369	35.696	1.00	66.33	A	C
ATOM	2847	NZ	LYS	A	383	-5.513	56.591	34.884	1.00	67.10	A	N

Figure 3

ATOM	2848	C	LYS	A	383	-1.248	60.243	37.678	1.00	57.17	A	C
ATOM	2849	O	LYS	A	383	-2.173	60.762	38.293	1.00	59.08	A	O
ATOM	2850	N	GLY	A	384	-0.565	60.887	36.740	1.00	54.71	A	N
ATOM	2851	CA	GLY	A	384	-0.909	62.254	36.411	1.00	51.57	A	C
ATOM	2852	C	GLY	A	384	0.039	63.311	36.940	1.00	49.77	A	C
ATOM	2853	O	GLY	A	384	0.293	64.314	36.260	1.00	50.34	A	O
ATOM	2854	N	THR	A	385	0.577	63.096	38.138	1.00	47.45	A	N
ATOM	2855	CA	THR	A	385	1.499	64.062	38.729	1.00	44.96	A	C
ATOM	2856	CB	THR	A	385	2.135	63.535	40.043	1.00	45.73	A	C
ATOM	2857	OG1	THR	A	385	2.771	62.272	39.808	1.00	46.81	A	O
ATOM	2858	CG2	THR	A	385	1.070	63.379	41.125	1.00	46.69	A	C
ATOM	2859	C	THR	A	385	2.607	64.428	37.753	1.00	42.58	A	C
ATOM	2860	O	THR	A	385	3.270	63.565	37.176	1.00	42.89	A	O
ATOM	2861	N	THR	A	386	2.779	65.725	37.556	1.00	38.75	A	N
ATOM	2862	CA	THR	A	386	3.795	66.234	36.651	1.00	35.50	A	C
ATOM	2863	CB	THR	A	386	3.653	67.739	36.516	1.00	35.22	A	C
ATOM	2864	OG1	THR	A	386	2.334	68.044	36.045	1.00	36.11	A	O
ATOM	2865	CG2	THR	A	386	4.675	68.280	35.554	1.00	35.18	A	C
ATOM	2866	C	THR	A	386	5.192	65.902	37.151	1.00	33.78	A	C
ATOM	2867	O	THR	A	386	5.425	65.826	38.358	1.00	33.72	A	O
ATOM	2868	N	ILE	A	387	6.115	65.690	36.217	1.00	32.68	A	N
ATOM	2869	CA	ILE	A	387	7.500	65.363	36.557	1.00	31.09	A	C
ATOM	2870	CB	ILE	A	387	7.917	64.002	35.981	1.00	31.44	A	C
ATOM	2871	CG2	ILE	A	387	9.325	63.667	36.422	1.00	31.38	A	C
ATOM	2872	CG1	ILE	A	387	6.951	62.920	36.445	1.00	32.87	A	C
ATOM	2873	CD1	ILE	A	387	6.909	62.767	37.938	1.00	33.98	A	C
ATOM	2874	C	ILE	A	387	8.420	66.405	35.951	1.00	29.90	A	C
ATOM	2875	O	ILE	A	387	8.273	66.771	34.795	1.00	29.81	A	O
ATOM	2876	N	LEU	A	388	9.378	66.880	36.715	1.00	28.61	A	N
ATOM	2877	CA	LEU	A	388	10.270	67.869	36.167	1.00	28.48	A	C
ATOM	2878	CB	LEU	A	388	10.231	69.127	37.029	1.00	29.26	A	C
ATOM	2879	CG	LEU	A	388	9.593	70.386	36.424	1.00	30.05	A	C
ATOM	2880	CD1	LEU	A	388	9.409	71.447	37.496	1.00	32.12	A	C
ATOM	2881	CD2	LEU	A	388	10.465	70.914	35.322	1.00	31.58	A	C
ATOM	2882	C	LEU	A	388	11.683	67.306	36.076	1.00	28.56	A	C
ATOM	2883	O	LEU	A	388	12.279	66.917	37.080	1.00	29.38	A	O
ATOM	2884	N	ILE	A	389	12.212	67.256	34.860	1.00	26.86	A	N
ATOM	2885	CA	ILE	A	389	13.542	66.727	34.644	1.00	24.74	A	C
ATOM	2886	CB	ILE	A	389	13.668	66.019	33.303	1.00	24.76	A	C
ATOM	2887	CG2	ILE	A	389	15.124	65.612	33.081	1.00	26.45	A	C
ATOM	2888	CG1	ILE	A	389	12.732	64.823	33.263	1.00	24.13	A	C
ATOM	2889	CD1	ILE	A	389	12.909	63.882	34.425	1.00	21.64	A	C
ATOM	2890	C	ILE	A	389	14.611	67.776	34.668	1.00	24.24	A	C
ATOM	2891	O	ILE	A	389	14.622	68.700	33.853	1.00	25.19	A	O
ATOM	2892	N	SER	A	390	15.549	67.616	35.577	1.00	23.48	A	N
ATOM	2893	CA	SER	A	390	16.605	68.593	35.661	1.00	23.33	A	C
ATOM	2894	CB	SER	A	390	17.109	68.712	37.087	1.00	23.70	A	C
ATOM	2895	OG	SER	A	390	18.164	69.648	37.121	1.00	25.64	A	O
ATOM	2896	C	SER	A	390	17.786	68.316	34.759	1.00	23.55	A	C
ATOM	2897	O	SER	A	390	18.843	67.908	35.227	1.00	23.30	A	O
ATOM	2898	N	LEU	A	391	17.618	68.560	33.470	1.00	22.57	A	N
ATOM	2899	CA	LEU	A	391	18.710	68.363	32.539	1.00	21.67	A	C
ATOM	2900	CB	LEU	A	391	18.348	68.897	31.173	1.00	18.58	A	C
ATOM	2901	CG	LEU	A	391	17.093	68.221	30.668	1.00	16.61	A	C
ATOM	2902	CD1	LEU	A	391	16.871	68.651	29.242	1.00	13.19	A	C
ATOM	2903	CD2	LEU	A	391	17.223	66.713	30.785	1.00	15.02	A	C
ATOM	2904	C	LEU	A	391	19.956	69.080	33.000	1.00	23.22	A	C
ATOM	2905	O	LEU	A	391	21.056	68.562	32.849	1.00	23.37	A	O
ATOM	2906	N	THR	A	392	19.795	70.277	33.544	1.00	24.12	A	N
ATOM	2907	CA	THR	A	392	20.964	70.998	33.984	1.00	26.59	A	C
ATOM	2908	CB	THR	A	392	20.642	72.162	34.914	1.00	28.07	A	C
ATOM	2909	OG1	THR	A	392	19.827	73.116	34.232	1.00	32.35	A	O
ATOM	2910	CG2	THR	A	392	21.945	72.831	35.359	1.00	29.57	A	C
ATOM	2911	C	THR	A	392	21.914	70.087	34.746	1.00	26.92	A	C
ATOM	2912	O	THR	A	392	23.096	69.992	34.411	1.00	26.38	A	O
ATOM	2913	N	SER	A	393	21.390	69.419	35.765	1.00	26.87	A	N
ATOM	2914	CA	SER	A	393	22.192	68.537	36.593	1.00	27.79	A	C
ATOM	2915	CB	SER	A	393	21.302	67.753	37.540	1.00	27.48	A	C
ATOM	2916	OG	SER	A	393	20.368	67.024	36.780	1.00	29.39	A	O
ATOM	2917	C	SER	A	393	22.996	67.557	35.767	1.00	27.86	A	C
ATOM	2918	O	SER	A	393	24.153	67.259	36.074	1.00	30.63	A	O
ATOM	2919	N	VAL	A	394	22.388	67.036	34.716	1.00	25.74	A	N
ATOM	2920	CA	VAL	A	394	23.106	66.084	33.897	1.00	24.23	A	C
ATOM	2921	CB	VAL	A	394	22.165	65.334	32.967	1.00	22.73	A	C
ATOM	2922	CG1	VAL	A	394	22.890	64.176	32.335	1.00	24.14	A	C

Figure 3

ATOM	2923	CG2	VAL	A	394	20.969	64.878	33.728	1.00	21.34	A	C
ATOM	2924	C	VAL	A	394	24.161	66.814	33.069	1.00	25.05	A	C
ATOM	2925	O	VAL	A	394	25.321	66.421	33.047	1.00	25.29	A	O
ATOM	2926	N	LEU	A	395	23.760	67.889	32.407	1.00	24.36	A	N
ATOM	2927	CA	LEU	A	395	24.685	68.625	31.585	1.00	24.09	A	C
ATOM	2928	CB	LEU	A	395	23.956	69.624	30.726	1.00	25.76	A	C
ATOM	2929	CG	LEU	A	395	23.632	69.155	29.328	1.00	28.65	A	C
ATOM	2930	CD1	LEU	A	395	22.381	68.294	29.314	1.00	30.05	A	C
ATOM	2931	CD2	LEU	A	395	23.461	70.397	28.491	1.00	29.58	A	C
ATOM	2932	C	LEU	A	395	25.755	69.378	32.327	1.00	23.29	A	C
ATOM	2933	O	LEU	A	395	26.687	69.897	31.718	1.00	22.34	A	O
ATOM	2934	N	HIS	A	396	25.633	69.473	33.636	1.00	24.47	A	N
ATOM	2935	CA	HIS	A	396	26.636	70.206	34.364	1.00	27.20	A	C
ATOM	2936	CB	HIS	A	396	26.062	71.522	34.885	1.00	27.12	A	C
ATOM	2937	CG	HIS	A	396	25.928	72.576	33.830	1.00	28.04	A	C
ATOM	2938	CD2	HIS	A	396	25.268	72.577	32.648	1.00	28.29	A	C
ATOM	2939	ND1	HIS	A	396	26.534	73.809	33.929	1.00	29.30	A	N
ATOM	2940	CE1	HIS	A	396	26.253	74.526	32.856	1.00	28.87	A	C
ATOM	2941	NE2	HIS	A	396	25.487	73.802	32.061	1.00	28.53	A	N
ATOM	2942	C	HIS	A	396	27.178	69.382	35.487	1.00	29.38	A	C
ATOM	2943	O	HIS	A	396	27.745	69.912	36.436	1.00	30.46	A	O
ATOM	2944	N	ASP	A	397	27.019	68.071	35.374	1.00	32.68	A	N
ATOM	2945	CA	ASP	A	397	27.498	67.192	36.424	1.00	35.48	A	C
ATOM	2946	CB	ASP	A	397	27.468	65.743	35.972	1.00	36.01	A	C
ATOM	2947	CG	ASP	A	397	27.760	64.804	37.103	1.00	38.58	A	C
ATOM	2948	OD1	ASP	A	397	28.896	64.849	37.614	1.00	38.21	A	O
ATOM	2949	OD2	ASP	A	397	26.843	64.052	37.514	1.00	40.77	A	O
ATOM	2950	C	ASP	A	397	28.901	67.559	36.898	1.00	37.62	A	C
ATOM	2951	O	ASP	A	397	29.854	67.587	36.126	1.00	38.00	A	O
ATOM	2952	N	ASN	A	398	29.023	67.817	38.193	1.00	41.41	A	N
ATOM	2953	CA	ASN	A	398	30.296	68.235	38.765	1.00	44.81	A	C
ATOM	2954	CB	ASN	A	398	30.135	68.476	40.269	1.00	46.68	A	C
ATOM	2955	CG	ASN	A	398	30.806	69.766	40.710	1.00	50.23	A	C
ATOM	2956	OD1	ASN	A	398	30.342	70.466	41.629	1.00	51.64	A	O
ATOM	2957	ND2	ASN	A	398	31.917	70.091	40.046	1.00	48.72	A	N
ATOM	2958	C	ASN	A	398	31.524	67.366	38.512	1.00	45.80	A	C
ATOM	2959	O	ASN	A	398	32.643	67.882	38.492	1.00	45.72	A	O
ATOM	2960	N	LYS	A	399	31.307	66.065	38.313	1.00	46.72	A	N
ATOM	2961	CA	LYS	A	399	32.379	65.085	38.074	1.00	47.83	A	C
ATOM	2962	CB	LYS	A	399	32.012	63.760	38.749	1.00	50.33	A	C
ATOM	2963	CG	LYS	A	399	33.022	62.662	38.527	1.00	53.77	A	C
ATOM	2964	CD	LYS	A	399	32.500	61.323	39.019	1.00	56.37	A	C
ATOM	2965	CE	LYS	A	399	33.633	60.289	39.075	1.00	57.83	A	C
ATOM	2966	NZ	LYS	A	399	34.506	60.464	40.299	1.00	59.13	A	N
ATOM	2967	C	LYS	A	399	32.660	64.818	36.586	1.00	47.31	A	C
ATOM	2968	O	LYS	A	399	33.783	65.012	36.104	1.00	48.23	A	O
ATOM	2969	N	GLU	A	400	31.639	64.350	35.873	1.00	44.20	A	N
ATOM	2970	CA	GLU	A	400	31.760	64.061	34.449	1.00	40.88	A	C
ATOM	2971	CB	GLU	A	400	30.403	63.673	33.864	1.00	40.70	A	C
ATOM	2972	CG	GLU	A	400	30.431	63.321	32.382	1.00	40.76	A	C
ATOM	2973	CD	GLU	A	400	31.099	61.987	32.115	1.00	41.84	A	C
ATOM	2974	OE1	GLU	A	400	31.329	61.645	30.941	1.00	40.41	A	O
ATOM	2975	OE2	GLU	A	400	31.394	61.268	33.089	1.00	44.81	A	O
ATOM	2976	C	GLU	A	400	32.315	65.249	33.670	1.00	38.72	A	C
ATOM	2977	O	GLU	A	400	32.873	65.071	32.598	1.00	39.61	A	O
ATOM	2978	N	PHE	A	401	32.144	66.460	34.184	1.00	37.19	A	N
ATOM	2979	CA	PHE	A	401	32.671	67.631	33.500	1.00	35.69	A	C
ATOM	2980	CB	PHE	A	401	31.586	68.413	32.776	1.00	31.78	A	C
ATOM	2981	CG	PHE	A	401	30.792	67.623	31.783	1.00	27.99	A	C
ATOM	2982	CD1	PHE	A	401	29.473	67.301	32.052	1.00	26.00	A	C
ATOM	2983	CD2	PHE	A	401	31.323	67.257	30.561	1.00	26.66	A	C
ATOM	2984	CE1	PHE	A	401	28.684	66.638	31.125	1.00	23.12	A	C
ATOM	2985	CE2	PHE	A	401	30.527	66.586	29.624	1.00	26.25	A	C
ATOM	2986	CZ	PHE	A	401	29.207	66.280	29.923	1.00	24.51	A	C
ATOM	2987	C	PHE	A	401	33.305	68.577	34.503	1.00	39.16	A	C
ATOM	2988	O	PHE	A	401	32.623	69.408	35.082	1.00	39.82	A	O
ATOM	2989	N	PRO	A	402	34.626	68.485	34.696	1.00	42.88	A	N
ATOM	2990	CD	PRO	A	402	35.516	67.734	33.797	1.00	44.32	A	C
ATOM	2991	CA	PRO	A	402	35.420	69.299	35.619	1.00	44.10	A	C
ATOM	2992	CB	PRO	A	402	36.697	69.514	34.847	1.00	45.40	A	C
ATOM	2993	CG	PRO	A	402	36.915	68.134	34.290	1.00	46.53	A	C
ATOM	2994	C	PRO	A	402	34.820	70.612	36.138	1.00	46.68	A	C
ATOM	2995	O	PRO	A	402	34.320	70.662	37.270	1.00	49.69	A	O
ATOM	2996	N	ASN	A	403	34.898	71.680	35.345	1.00	46.36	A	N
ATOM	2997	CA	ASN	A	403	34.358	72.993	35.729	1.00	46.57	A	C

237/514

Figure 3

ATOM	2998	CB	ASN	A	403	35.440	74.073	35.586	1.00	48.98	A	C
ATOM	2999	CG	ASN	A	403	36.584	73.871	36.545	1.00	50.51	A	C
ATOM	3000	OD1	ASN	A	403	36.423	74.032	37.755	1.00	52.97	A	O
ATOM	3001	ND2	ASN	A	403	37.750	73.509	36.016	1.00	49.45	A	N
ATOM	3002	C	ASN	A	403	33.193	73.317	34.819	1.00	45.44	A	C
ATOM	3003	O	ASN	A	403	33.309	74.156	33.927	1.00	45.43	A	O
ATOM	3004	N	PRO	A	404	32.044	72.675	35.053	1.00	44.08	A	N
ATOM	3005	CD	PRO	A	404	31.773	71.888	36.261	1.00	42.76	A	C
ATOM	3006	CA	PRO	A	404	30.811	72.834	34.284	1.00	44.39	A	C
ATOM	3007	CB	PRO	A	404	29.770	72.157	35.165	1.00	43.37	A	C
ATOM	3008	CG	PRO	A	404	30.552	71.119	35.857	1.00	42.10	A	C
ATOM	3009	C	PRO	A	404	30.400	74.252	33.921	1.00	45.41	A	C
ATOM	3010	O	PRO	A	404	29.738	74.458	32.915	1.00	45.66	A	O
ATOM	3011	N	GLU	A	405	30.794	75.223	34.733	1.00	47.74	A	N
ATOM	3012	CA	GLU	A	405	30.421	76.607	34.487	1.00	50.69	A	C
ATOM	3013	CB	GLU	A	405	30.417	77.376	35.806	1.00	54.92	A	C
ATOM	3014	CG	GLU	A	405	29.490	76.755	36.865	1.00	62.07	A	C
ATOM	3015	CD	GLU	A	405	28.007	76.933	36.530	1.00	65.78	A	C
ATOM	3016	OE1	GLU	A	405	27.452	78.022	36.848	1.00	67.05	A	O
ATOM	3017	OE2	GLU	A	405	27.408	75.996	35.938	1.00	67.67	A	O
ATOM	3018	C	GLU	A	405	31.310	77.320	33.485	1.00	49.86	A	C
ATOM	3019	O	GLU	A	405	31.053	78.469	33.116	1.00	50.00	A	O
ATOM	3020	N	MET	A	406	32.359	76.645	33.045	1.00	49.20	A	N
ATOM	3021	CA	MET	A	406	33.277	77.246	32.095	1.00	49.59	A	C
ATOM	3022	CB	MET	A	406	34.692	77.197	32.688	1.00	54.31	A	C
ATOM	3023	CG	MET	A	406	34.847	78.010	33.991	1.00	60.20	A	C
ATOM	3024	SD	MET	A	406	35.788	79.582	33.799	1.00	65.61	A	S
ATOM	3025	CE	MET	A	406	37.439	79.125	34.515	1.00	64.30	A	C
ATOM	3026	C	MET	A	406	33.201	76.569	30.722	1.00	47.03	A	C
ATOM	3027	O	MET	A	406	32.882	75.385	30.609	1.00	47.49	A	O
ATOM	3028	N	PHE	A	407	33.468	77.326	29.669	1.00	43.90	A	N
ATOM	3029	CA	PHE	A	407	33.398	76.761	28.329	1.00	40.32	A	C
ATOM	3030	CB	PHE	A	407	33.106	77.863	27.316	1.00	36.66	A	C
ATOM	3031	CG	PHE	A	407	33.000	77.373	25.908	1.00	32.03	A	C
ATOM	3032	CD1	PHE	A	407	31.927	76.588	25.513	1.00	32.06	A	C
ATOM	3033	CD2	PHE	A	407	33.964	77.700	24.971	1.00	30.34	A	C
ATOM	3034	CE1	PHE	A	407	31.808	76.130	24.198	1.00	29.62	A	C
ATOM	3035	CE2	PHE	A	407	33.861	77.247	23.649	1.00	29.33	A	C
ATOM	3036	CZ	PHE	A	407	32.777	76.461	23.267	1.00	28.28	A	C
ATOM	3037	C	PHE	A	407	34.701	76.084	27.950	1.00	40.18	A	C
ATOM	3038	O	PHE	A	407	35.727	76.744	27.817	1.00	40.78	A	O
ATOM	3039	N	ASP	A	408	34.686	74.773	27.765	1.00	39.42	A	N
ATOM	3040	CA	ASP	A	408	35.926	74.114	27.385	1.00	38.59	A	C
ATOM	3041	CB	ASP	A	408	36.685	73.672	28.640	1.00	39.88	A	C
ATOM	3042	CG	ASP	A	408	38.066	73.096	28.341	1.00	42.25	A	C
ATOM	3043	OD1	ASP	A	408	38.784	72.782	29.328	1.00	42.50	A	O
ATOM	3044	OD2	ASP	A	408	38.437	72.957	27.148	1.00	42.88	A	O
ATOM	3045	C	ASP	A	408	35.660	72.932	26.485	1.00	37.04	A	C
ATOM	3046	O	ASP	A	408	35.070	71.950	26.907	1.00	36.40	A	O
ATOM	3047	N	PRO	A	409	36.075	73.029	25.218	1.00	35.17	A	N
ATOM	3048	CD	PRO	A	409	36.682	74.226	24.620	1.00	36.46	A	C
ATOM	3049	CA	PRO	A	409	35.906	71.986	24.212	1.00	36.39	A	C
ATOM	3050	CB	PRO	A	409	36.684	72.525	23.021	1.00	35.98	A	C
ATOM	3051	CG	PRO	A	409	36.504	73.980	23.138	1.00	36.05	A	C
ATOM	3052	C	PRO	A	409	36.488	70.681	24.707	1.00	35.87	A	C
ATOM	3053	O	PRO	A	409	36.008	69.592	24.361	1.00	36.12	A	O
ATOM	3054	N	HIS	A	410	37.524	70.785	25.531	1.00	37.10	A	N
ATOM	3055	CA	HIS	A	410	38.174	69.587	26.042	1.00	37.05	A	C
ATOM	3056	CB	HIS	A	410	39.460	69.958	26.809	1.00	38.51	A	C
ATOM	3057	CG	HIS	A	410	40.476	70.679	25.974	1.00	41.16	A	C
ATOM	3058	CD2	HIS	A	410	41.109	71.862	26.159	1.00	41.99	A	C
ATOM	3059	ND1	HIS	A	410	40.908	70.203	24.749	1.00	41.77	A	N
ATOM	3060	CE1	HIS	A	410	41.753	71.069	24.218	1.00	42.56	A	C
ATOM	3061	NE2	HIS	A	410	41.893	72.087	25.053	1.00	43.05	A	N
ATOM	3062	C	HIS	A	410	37.251	68.699	26.882	1.00	36.89	A	C
ATOM	3063	O	HIS	A	410	37.642	67.586	27.229	1.00	39.63	A	O
ATOM	3064	N	HIS	A	411	36.039	69.171	27.202	1.00	37.10	A	N
ATOM	3065	CA	HIS	A	411	35.065	68.350	27.962	1.00	35.36	A	C
ATOM	3066	CB	HIS	A	411	33.819	69.148	28.371	1.00	36.31	A	C
ATOM	3067	CG	HIS	A	411	34.011	70.000	29.585	1.00	37.20	A	C
ATOM	3068	CD2	HIS	A	411	33.917	71.342	29.759	1.00	37.39	A	C
ATOM	3069	ND1	HIS	A	411	34.377	69.479	30.805	1.00	37.32	A	N
ATOM	3070	CE1	HIS	A	411	34.506	70.462	31.684	1.00	37.63	A	C
ATOM	3071	NE2	HIS	A	411	34.234	71.599	31.073	1.00	37.46	A	N
ATOM	3072	C	HIS	A	411	34.595	67.217	27.061	1.00	34.23	A	C

Figure 3

ATOM	3073	O	HIS	A	411	33.928	66.282	27.505	1.00	34.68	A	O
ATOM	3074	N	PHE	A	412	34.902	67.326	25.777	1.00	33.92	A	N
ATOM	3075	CA	PHE	A	412	34.504	66.282	24.855	1.00	34.87	A	C
ATOM	3076	CB	PHE	A	412	33.367	66.768	23.955	1.00	32.27	A	C
ATOM	3077	CG	PHE	A	412	32.057	66.879	24.666	1.00	30.45	A	C
ATOM	3078	CD1	PHE	A	412	31.717	68.035	25.346	1.00	30.54	A	C
ATOM	3079	CD2	PHE	A	412	31.181	65.800	24.697	1.00	31.22	A	C
ATOM	3080	CE1	PHE	A	412	30.522	68.119	26.055	1.00	31.98	A	C
ATOM	3081	CE2	PHE	A	412	29.978	65.868	25.404	1.00	31.68	A	C
ATOM	3082	CZ	PHE	A	412	29.651	67.030	26.083	1.00	32.07	A	C
ATOM	3083	C	PHE	A	412	35.696	65.798	24.041	1.00	37.26	A	C
ATOM	3084	O	PHE	A	412	35.577	65.461	22.865	1.00	36.60	A	O
ATOM	3085	N	LEU	A	413	36.849	65.770	24.698	1.00	38.78	A	N
ATOM	3086	CA	LEU	A	413	38.089	65.321	24.090	1.00	39.74	A	C
ATOM	3087	CB	LEU	A	413	38.921	66.519	23.643	1.00	36.34	A	C
ATOM	3088	CG	LEU	A	413	38.299	67.372	22.557	1.00	32.05	A	C
ATOM	3089	CD1	LEU	A	413	39.346	68.331	22.019	1.00	30.98	A	C
ATOM	3090	CD2	LEU	A	413	37.776	66.484	21.443	1.00	29.95	A	C
ATOM	3091	C	LEU	A	413	38.939	64.451	25.028	1.00	42.69	A	C
ATOM	3092	O	LEU	A	413	38.925	64.606	26.258	1.00	42.52	A	O
ATOM	3093	N	ASP	A	414	39.700	63.550	24.421	1.00	44.11	A	N
ATOM	3094	CA	ASP	A	414	40.573	62.670	25.165	1.00	46.15	A	C
ATOM	3095	CB	ASP	A	414	40.532	61.250	24.581	1.00	43.53	A	C
ATOM	3096	CG	ASP	A	414	41.061	61.183	23.166	1.00	45.66	A	C
ATOM	3097	OD1	ASP	A	414	40.895	60.130	22.509	1.00	46.84	A	O
ATOM	3098	OD2	ASP	A	414	41.655	62.180	22.700	1.00	44.15	A	O
ATOM	3099	C	ASP	A	414	41.992	63.237	25.107	1.00	48.20	A	C
ATOM	3100	O	ASP	A	414	42.264	64.170	24.338	1.00	47.88	A	O
ATOM	3101	N	GLU	A	415	42.886	62.675	25.925	1.00	49.99	A	N
ATOM	3102	CA	GLU	A	415	44.282	63.116	26.005	1.00	51.46	A	C
ATOM	3103	CB	GLU	A	415	45.129	62.063	26.744	1.00	54.49	A	C
ATOM	3104	CG	GLU	A	415	45.216	60.676	26.074	1.00	58.82	A	C
ATOM	3105	CD	GLU	A	415	44.356	59.585	26.740	1.00	62.79	A	C
ATOM	3106	OE1	GLU	A	415	44.287	58.464	26.162	1.00	65.08	A	O
ATOM	3107	OE2	GLU	A	415	43.760	59.834	27.827	1.00	64.19	A	O
ATOM	3108	C	GLU	A	415	44.858	63.393	24.618	1.00	50.65	A	C
ATOM	3109	O	GLU	A	415	45.506	64.424	24.395	1.00	51.07	A	O
ATOM	3110	N	GLY	A	416	44.620	62.468	23.689	1.00	49.03	A	N
ATOM	3111	CA	GLY	A	416	45.097	62.644	22.326	1.00	48.23	A	C
ATOM	3112	C	GLY	A	416	44.417	63.896	21.803	1.00	46.79	A	C
ATOM	3113	O	GLY	A	416	44.639	65.004	22.305	1.00	48.65	A	O
ATOM	3114	N	GLY	A	417	43.575	63.734	20.797	1.00	45.19	A	N
ATOM	3115	CA	GLY	A	417	42.868	64.884	20.279	1.00	42.93	A	C
ATOM	3116	C	GLY	A	417	41.510	64.418	19.812	1.00	41.14	A	C
ATOM	3117	O	GLY	A	417	40.718	65.214	19.312	1.00	41.52	A	O
ATOM	3118	N	ASN	A	418	41.240	63.122	19.993	1.00	40.29	A	N
ATOM	3119	CA	ASN	A	418	39.980	62.490	19.563	1.00	39.24	A	C
ATOM	3120	CB	ASN	A	418	40.067	60.957	19.666	1.00	43.00	A	C
ATOM	3121	CG	ASN	A	418	41.334	60.375	19.046	1.00	46.10	A	C
ATOM	3122	OD1	ASN	A	418	42.260	59.976	19.765	1.00	47.85	A	O
ATOM	3123	ND2	ASN	A	418	41.379	60.317	17.709	1.00	45.04	A	N
ATOM	3124	C	ASN	A	418	38.695	62.908	20.291	1.00	37.15	A	C
ATOM	3125	O	ASN	A	418	38.712	63.532	21.351	1.00	37.03	A	O
ATOM	3126	N	PHE	A	419	37.567	62.511	19.717	1.00	35.45	A	N
ATOM	3127	CA	PHE	A	419	36.282	62.852	20.301	1.00	33.04	A	C
ATOM	3128	CB	PHE	A	419	35.221	62.993	19.189	1.00	32.60	A	C
ATOM	3129	CG	PHE	A	419	33.841	63.326	19.697	1.00	31.06	A	C
ATOM	3130	CD1	PHE	A	419	33.540	64.595	20.195	1.00	31.12	A	C
ATOM	3131	CD2	PHE	A	419	32.874	62.336	19.769	1.00	31.80	A	C
ATOM	3132	CE1	PHE	A	419	32.296	64.859	20.769	1.00	30.53	A	C
ATOM	3133	CE2	PHE	A	419	31.636	62.589	20.338	1.00	31.80	A	C
ATOM	3134	CZ	PHE	A	419	31.344	63.851	20.844	1.00	30.82	A	C
ATOM	3135	C	PHE	A	419	35.828	61.857	21.369	1.00	32.27	A	C
ATOM	3136	O	PHE	A	419	35.825	60.632	21.163	1.00	31.23	A	O
ATOM	3137	N	LYS	A	420	35.461	62.412	22.522	1.00	32.22	A	N
ATOM	3138	CA	LYS	A	420	35.001	61.630	23.659	1.00	32.81	A	C
ATOM	3139	CB	LYS	A	420	35.791	61.982	24.921	1.00	35.83	A	C
ATOM	3140	CG	LYS	A	420	35.403	61.058	26.083	1.00	42.17	A	C
ATOM	3141	CD	LYS	A	420	36.528	60.868	27.083	1.00	47.40	A	C
ATOM	3142	CE	LYS	A	420	36.569	62.019	28.069	1.00	51.22	A	C
ATOM	3143	NZ	LYS	A	420	37.854	62.019	28.834	1.00	54.66	A	N
ATOM	3144	C	LYS	A	420	33.534	61.818	23.994	1.00	31.10	A	C
ATOM	3145	O	LYS	A	420	33.186	62.764	24.693	1.00	33.12	A	O
ATOM	3146	N	LYS	A	421	32.673	60.919	23.542	1.00	30.34	A	N
ATOM	3147	CA	LYS	A	421	31.254	61.036	23.862	1.00	30.25	A	C

Figure 3

ATOM	3148	CB	LYS	A	421	30.458	59.890	23.221	1.00	31.99	A	C
ATOM	3149	CG	LYS	A	421	30.728	58.491	23.781	1.00	34.73	A	C
ATOM	3150	CD	LYS	A	421	30.158	57.427	22.827	1.00	37.84	A	C
ATOM	3151	CE	LYS	A	421	30.443	55.983	23.276	1.00	38.53	A	C
ATOM	3152	NZ	LYS	A	421	30.692	55.105	22.071	1.00	41.32	A	N
ATOM	3153	C	LYS	A	421	31.019	61.021	25.367	1.00	30.00	A	C
ATOM	3154	O	LYS	A	421	31.969	60.890	26.134	1.00	31.09	A	O
ATOM	3155	N	SER	A	422	29.751	61.176	25.768	1.00	30.83	A	N
ATOM	3156	CA	SER	A	422	29.308	61.135	27.180	1.00	28.97	A	C
ATOM	3157	CB	SER	A	422	29.508	62.476	27.878	1.00	26.55	A	C
ATOM	3158	OG	SER	A	422	28.677	62.543	29.017	1.00	24.90	A	O
ATOM	3159	C	SER	A	422	27.827	60.795	27.235	1.00	30.48	A	C
ATOM	3160	O	SER	A	422	27.060	61.219	26.371	1.00	30.30	A	O
ATOM	3161	N	LYS	A	423	27.417	60.028	28.237	1.00	32.37	A	N
ATOM	3162	CA	LYS	A	423	25.997	59.695	28.359	1.00	34.89	A	C
ATOM	3163	CB	LYS	A	423	25.783	58.323	29.035	1.00	35.38	A	C
ATOM	3164	CG	LYS	A	423	26.591	58.065	30.310	1.00	37.42	A	C
ATOM	3165	CD	LYS	A	423	26.209	56.734	30.999	1.00	38.37	A	C
ATOM	3166	CE	LYS	A	423	27.046	56.469	32.277	1.00	38.45	A	C
ATOM	3167	NZ	LYS	A	423	26.619	55.280	33.091	1.00	34.17	A	N
ATOM	3168	C	LYS	A	423	25.309	60.793	29.158	1.00	35.39	A	C
ATOM	3169	O	LYS	A	423	24.098	60.794	29.317	1.00	36.41	A	O
ATOM	3170	N	TYR	A	424	26.110	61.730	29.649	1.00	34.68	A	N
ATOM	3171	CA	TYR	A	424	25.619	62.859	30.414	1.00	33.24	A	C
ATOM	3172	CB	TYR	A	424	26.693	63.334	31.387	1.00	34.40	A	C
ATOM	3173	CG	TYR	A	424	26.871	62.439	32.584	1.00	36.45	A	C
ATOM	3174	CD1	TYR	A	424	26.531	62.882	33.854	1.00	36.10	A	C
ATOM	3175	CE1	TYR	A	424	26.665	62.064	34.963	1.00	37.83	A	C
ATOM	3176	CD2	TYR	A	424	27.355	61.141	32.448	1.00	38.45	A	C
ATOM	3177	CE2	TYR	A	424	27.492	60.311	33.556	1.00	37.18	A	C
ATOM	3178	CZ	TYR	A	424	27.143	60.785	34.812	1.00	38.08	A	C
ATOM	3179	OH	TYR	A	424	27.275	59.986	35.922	1.00	39.64	A	O
ATOM	3180	C	TYR	A	424	25.263	64.012	29.475	1.00	32.55	A	C
ATOM	3181	O	TYR	A	424	25.100	65.144	29.915	1.00	33.98	A	O
ATOM	3182	N	PHE	A	425	25.153	63.732	28.185	1.00	29.51	A	N
ATOM	3183	CA	PHE	A	425	24.833	64.760	27.208	1.00	26.42	A	C
ATOM	3184	CB	PHE	A	425	25.792	64.658	26.027	1.00	23.34	A	C
ATOM	3185	CG	PHE	A	425	25.604	65.715	24.966	1.00	20.04	A	C
ATOM	3186	CD1	PHE	A	425	26.058	67.015	25.158	1.00	18.30	A	C
ATOM	3187	CD2	PHE	A	425	25.072	65.373	23.727	1.00	17.75	A	C
ATOM	3188	CE1	PHE	A	425	26.001	67.958	24.120	1.00	17.32	A	C
ATOM	3189	CE2	PHE	A	425	25.010	66.305	22.681	1.00	16.80	A	C
ATOM	3190	CZ	PHE	A	425	25.477	67.592	22.881	1.00	17.29	A	C
ATOM	3191	C	PHE	A	425	23.420	64.559	26.718	1.00	28.04	A	C
ATOM	3192	O	PHE	A	425	23.185	63.810	25.770	1.00	29.86	A	O
ATOM	3193	N	MET	A	426	22.460	65.214	27.349	1.00	28.36	A	N
ATOM	3194	CA	MET	A	426	21.095	65.047	26.881	1.00	28.03	A	C
ATOM	3195	CB	MET	A	426	20.297	64.302	27.930	1.00	27.12	A	C
ATOM	3196	CG	MET	A	426	21.085	63.274	28.665	1.00	27.50	A	C
ATOM	3197	SD	MET	A	426	20.238	62.829	30.189	1.00	30.53	A	S
ATOM	3198	CE	MET	A	426	19.606	61.202	29.744	1.00	24.30	A	C
ATOM	3199	C	MET	A	426	20.401	66.372	26.580	1.00	27.24	A	C
ATOM	3200	O	MET	A	426	19.205	66.468	26.765	1.00	27.90	A	O
ATOM	3201	N	PRO	A	427	21.128	67.387	26.072	1.00	25.05	A	N
ATOM	3202	CD	PRO	A	427	22.263	67.225	25.153	1.00	25.21	A	C
ATOM	3203	CA	PRO	A	427	20.457	68.652	25.796	1.00	22.69	A	C
ATOM	3204	CB	PRO	A	427	21.469	69.398	24.960	1.00	23.47	A	C
ATOM	3205	CG	PRO	A	427	22.015	68.329	24.135	1.00	23.87	A	C
ATOM	3206	C	PRO	A	427	19.155	68.409	25.059	1.00	22.02	A	C
ATOM	3207	O	PRO	A	427	18.271	69.241	25.124	1.00	22.04	A	O
ATOM	3208	N	PHE	A	428	19.034	67.283	24.356	1.00	20.97	A	N
ATOM	3209	CA	PHE	A	428	17.779	66.971	23.682	1.00	20.27	A	C
ATOM	3210	CB	PHE	A	428	18.007	66.280	22.334	1.00	21.07	A	C
ATOM	3211	CG	PHE	A	428	18.956	66.994	21.420	1.00	21.66	A	C
ATOM	3212	CD1	PHE	A	428	20.288	66.628	21.364	1.00	23.83	A	C
ATOM	3213	CD2	PHE	A	428	18.517	68.029	20.604	1.00	23.47	A	C
ATOM	3214	CE1	PHE	A	428	21.177	67.284	20.505	1.00	26.04	A	C
ATOM	3215	CE2	PHE	A	428	19.403	68.692	19.738	1.00	22.62	A	C
ATOM	3216	CZ	PHE	A	428	20.736	68.318	19.691	1.00	23.34	A	C
ATOM	3217	C	PHE	A	428	16.977	66.017	24.576	1.00	20.68	A	C
ATOM	3218	O	PHE	A	428	16.082	65.321	24.121	1.00	20.26	A	O
ATOM	3219	N	SER	A	429	17.303	65.990	25.858	1.00	20.83	A	N
ATOM	3220	CA	SER	A	429	16.659	65.100	26.810	1.00	22.14	A	C
ATOM	3221	CB	SER	A	429	15.169	65.365	26.897	1.00	21.54	A	C
ATOM	3222	OG	SER	A	429	14.584	64.445	27.786	1.00	21.64	A	O

Figure 3

ATOM	3223	C	SER	A 429	16.890	63.649	26.437	1.00	24.07	A	C
ATOM	3224	O	SER	A 429	17.783	63.331	25.653	1.00	26.36	A	O
ATOM	3225	N	ALA	A 430	16.077	62.763	26.993	1.00	26.27	A	N
ATOM	3226	CA	ALA	A 430	16.231	61.345	26.727	1.00	29.60	A	C
ATOM	3227	CB	ALA	A 430	17.342	60.802	27.589	1.00	28.86	A	C
ATOM	3228	C	ALA	A 430	14.945	60.579	26.989	1.00	32.25	A	C
ATOM	3229	O	ALA	A 430	13.980	61.128	27.512	1.00	34.62	A	O
ATOM	3230	N	GLY	A 431	14.924	59.307	26.618	1.00	34.16	A	N
ATOM	3231	CA	GLY	A 431	13.728	58.524	26.864	1.00	37.75	A	C
ATOM	3232	C	GLY	A 431	12.766	58.418	25.698	1.00	39.79	A	C
ATOM	3233	O	GLY	A 431	13.070	58.848	24.582	1.00	39.21	A	O
ATOM	3234	N	LYS	A 432	11.591	57.846	25.956	1.00	41.76	A	N
ATOM	3235	CA	LYS	A 432	10.598	57.680	24.901	1.00	43.17	A	C
ATOM	3236	CB	LYS	A 432	9.466	56.763	25.382	1.00	44.81	A	C
ATOM	3237	CG	LYS	A 432	9.797	55.290	25.178	1.00	48.61	A	C
ATOM	3238	CD	LYS	A 432	8.635	54.376	25.532	1.00	51.62	A	C
ATOM	3239	CE	LYS	A 432	8.808	52.981	24.909	1.00	53.39	A	C
ATOM	3240	NZ	LYS	A 432	8.801	53.012	23.400	1.00	54.40	A	N
ATOM	3241	C	LYS	A 432	10.051	59.005	24.366	1.00	42.71	A	C
ATOM	3242	O	LYS	A 432	9.421	59.049	23.307	1.00	42.71	A	O
ATOM	3243	N	ARG	A 433	10.329	60.089	25.088	1.00	42.78	A	N
ATOM	3244	CA	ARG	A 433	9.868	61.421	24.693	1.00	41.46	A	C
ATOM	3245	CB	ARG	A 433	9.123	62.077	25.871	1.00	43.17	A	C
ATOM	3246	CG	ARG	A 433	7.616	61.800	25.907	1.00	45.43	A	C
ATOM	3247	CD	ARG	A 433	6.810	62.766	25.030	1.00	46.80	A	C
ATOM	3248	NE	ARG	A 433	5.380	62.469	25.078	1.00	48.92	A	N
ATOM	3249	CZ	ARG	A 433	4.407	63.334	24.787	1.00	51.22	A	C
ATOM	3250	NH1	ARG	A 433	4.693	64.579	24.422	1.00	50.24	A	N
ATOM	3251	NH2	ARG	A 433	3.137	62.943	24.849	1.00	52.87	A	N
ATOM	3252	C	ARG	A 433	11.005	62.326	24.200	1.00	39.70	A	C
ATOM	3253	O	ARG	A 433	10.838	63.539	24.097	1.00	40.07	A	O
ATOM	3254	N	ILE	A 434	12.150	61.723	23.891	1.00	36.43	A	N
ATOM	3255	CA	ILE	A 434	13.320	62.458	23.406	1.00	33.74	A	C
ATOM	3256	CB	ILE	A 434	14.422	61.516	22.986	1.00	34.82	A	C
ATOM	3257	CG2	ILE	A 434	14.006	60.784	21.725	1.00	35.49	A	C
ATOM	3258	CG1	ILE	A 434	15.682	62.292	22.657	1.00	34.75	A	C
ATOM	3259	CD1	ILE	A 434	16.828	61.381	22.328	1.00	35.41	A	C
ATOM	3260	C	ILE	A 434	12.997	63.278	22.169	1.00	31.17	A	C
ATOM	3261	O	ILE	A 434	12.187	62.866	21.351	1.00	31.21	A	O
ATOM	3262	N	CYS	A 435	13.674	64.408	22.011	1.00	27.74	A	N
ATOM	3263	CA	CYS	A 435	13.422	65.265	20.866	1.00	26.20	A	C
ATOM	3264	CB	CYS	A 435	14.459	66.361	20.713	1.00	25.71	A	C
ATOM	3265	SG	CYS	A 435	14.341	67.079	19.062	1.00	29.11	A	S
ATOM	3266	C	CYS	A 435	13.349	64.578	19.523	1.00	25.59	A	C
ATOM	3267	O	CYS	A 435	14.283	63.911	19.088	1.00	26.16	A	O
ATOM	3268	N	VAL	A 436	12.236	64.815	18.847	1.00	25.30	A	N
ATOM	3269	CA	VAL	A 436	12.012	64.273	17.529	1.00	24.68	A	C
ATOM	3270	CB	VAL	A 436	10.627	64.638	17.046	1.00	22.85	A	C
ATOM	3271	CG1	VAL	A 436	10.553	64.585	15.551	1.00	22.21	A	C
ATOM	3272	CG2	VAL	A 436	9.645	63.676	17.646	1.00	23.03	A	C
ATOM	3273	C	VAL	A 436	13.057	64.766	16.539	1.00	26.78	A	C
ATOM	3274	O	VAL	A 436	13.543	64.014	15.699	1.00	28.82	A	O
ATOM	3275	N	GLY	A 437	13.428	66.030	16.645	1.00	27.44	A	N
ATOM	3276	CA	GLY	A 437	14.423	66.558	15.734	1.00	29.21	A	C
ATOM	3277	C	GLY	A 437	15.867	66.452	16.187	1.00	30.37	A	C
ATOM	3278	O	GLY	A 437	16.689	67.309	15.827	1.00	31.48	A	O
ATOM	3279	N	GLU	A 438	16.201	65.423	16.964	1.00	30.25	A	N
ATOM	3280	CA	GLU	A 438	17.587	65.279	17.424	1.00	29.95	A	C
ATOM	3281	CB	GLU	A 438	17.769	63.985	18.224	1.00	32.05	A	C
ATOM	3282	CG	GLU	A 438	19.145	63.876	18.906	1.00	38.82	A	C
ATOM	3283	CD	GLU	A 438	19.315	62.585	19.688	1.00	42.64	A	C
ATOM	3284	OE1	GLU	A 438	20.345	62.454	20.413	1.00	43.98	A	O
ATOM	3285	OE2	GLU	A 438	18.423	61.689	19.583	1.00	43.52	A	O
ATOM	3286	C	GLU	A 438	18.582	65.285	16.261	1.00	27.57	A	C
ATOM	3287	O	GLU	A 438	19.570	66.011	16.279	1.00	25.24	A	O
ATOM	3288	N	ALA	A 439	18.302	64.469	15.252	1.00	27.48	A	N
ATOM	3289	CA	ALA	A 439	19.169	64.364	14.095	1.00	26.05	A	C
ATOM	3290	CB	ALA	A 439	18.653	63.291	13.165	1.00	27.14	A	C
ATOM	3291	C	ALA	A 439	19.282	65.676	13.346	1.00	26.34	A	C
ATOM	3292	O	ALA	A 439	20.366	66.245	13.220	1.00	27.58	A	O
ATOM	3293	N	LEU	A 440	18.149	66.146	12.834	1.00	26.54	A	N
ATOM	3294	CA	LEU	A 440	18.102	67.390	12.068	1.00	25.44	A	C
ATOM	3295	CB	LEU	A 440	16.662	67.841	11.867	1.00	24.53	A	C
ATOM	3296	CG	LEU	A 440	16.448	69.207	11.230	1.00	23.71	A	C
ATOM	3297	CD1	LEU	A 440	17.281	69.384	9.977	1.00	25.27	A	C

Figure 3

ATOM	3298	CD2	LEU	A	440	14.983	69.325	10.912	1.00	23.81	A	C
ATOM	3299	C	LEU	A	440	18.865	68.481	12.774	1.00	24.89	A	C
ATOM	3300	O	LEU	A	440	19.707	69.140	12.175	1.00	24.44	A	O
ATOM	3301	N	ALA	A	441	18.549	68.684	14.044	1.00	25.79	A	N
ATOM	3302	CA	ALA	A	441	19.233	69.705	14.803	1.00	27.32	A	C
ATOM	3303	CB	ALA	A	441	18.851	69.625	16.267	1.00	27.87	A	C
ATOM	3304	C	ALA	A	441	20.722	69.486	14.637	1.00	28.61	A	C
ATOM	3305	O	ALA	A	441	21.465	70.417	14.324	1.00	30.02	A	O
ATOM	3306	N	GLY	A	442	21.169	68.254	14.853	1.00	30.27	A	N
ATOM	3307	CA	GLY	A	442	22.591	67.949	14.700	1.00	30.82	A	C
ATOM	3308	C	GLY	A	442	23.117	68.591	13.426	1.00	30.60	A	C
ATOM	3309	O	GLY	A	442	24.070	69.367	13.442	1.00	31.18	A	O
ATOM	3310	N	MET	A	443	22.459	68.264	12.318	1.00	29.65	A	N
ATOM	3311	CA	MET	A	443	22.824	68.793	11.022	1.00	28.94	A	C
ATOM	3312	CB	MET	A	443	21.823	68.352	9.969	1.00	29.71	A	C
ATOM	3313	CG	MET	A	443	21.897	66.891	9.692	1.00	33.35	A	C
ATOM	3314	SD	MET	A	443	20.994	66.355	8.215	1.00	36.07	A	S
ATOM	3315	CE	MET	A	443	20.001	64.948	8.883	1.00	38.37	A	C
ATOM	3316	C	MET	A	443	22.935	70.305	10.968	1.00	28.77	A	C
ATOM	3317	O	MET	A	443	23.998	70.861	10.685	1.00	29.45	A	O
ATOM	3318	N	GLU	A	444	21.824	70.974	11.239	1.00	29.70	A	N
ATOM	3319	CA	GLU	A	444	21.786	72.420	11.175	1.00	29.12	A	C
ATOM	3320	CB	GLU	A	444	20.439	72.931	11.704	1.00	30.49	A	C
ATOM	3321	CG	GLU	A	444	19.270	72.289	10.957	1.00	34.74	A	C
ATOM	3322	CD	GLU	A	444	17.936	72.982	11.169	1.00	36.00	A	C
ATOM	3323	OE1	GLU	A	444	17.834	74.177	10.845	1.00	37.08	A	O
ATOM	3324	OE2	GLU	A	444	16.983	72.324	11.645	1.00	35.77	A	O
ATOM	3325	C	GLU	A	444	22.955	72.987	11.953	1.00	28.42	A	C
ATOM	3326	O	GLU	A	444	23.711	73.807	11.440	1.00	28.86	A	O
ATOM	3327	N	LEU	A	445	23.136	72.520	13.177	1.00	27.36	A	N
ATOM	3328	CA	LEU	A	445	24.225	73.013	13.999	1.00	27.39	A	C
ATOM	3329	CB	LEU	A	445	24.244	72.265	15.326	1.00	26.95	A	C
ATOM	3330	CG	LEU	A	445	23.031	72.771	16.082	1.00	28.28	A	C
ATOM	3331	CD1	LEU	A	445	22.928	72.116	17.440	1.00	29.67	A	C
ATOM	3332	CD2	LEU	A	445	23.156	74.288	16.220	1.00	28.23	A	C
ATOM	3333	C	LEU	A	445	25.573	72.907	13.323	1.00	27.31	A	C
ATOM	3334	O	LEU	A	445	26.303	73.900	13.175	1.00	28.19	A	O
ATOM	3335	N	PHE	A	446	25.890	71.689	12.907	1.00	26.05	A	N
ATOM	3336	CA	PHE	A	446	27.157	71.387	12.265	1.00	24.69	A	C
ATOM	3337	CB	PHE	A	446	27.287	69.874	12.075	1.00	24.91	A	C
ATOM	3338	CG	PHE	A	446	28.567	69.471	11.417	1.00	25.44	A	C
ATOM	3339	CD1	PHE	A	446	28.619	69.233	10.054	1.00	26.92	A	C
ATOM	3340	CD2	PHE	A	446	29.740	69.380	12.158	1.00	25.02	A	C
ATOM	3341	CE1	PHE	A	446	29.824	68.907	9.438	1.00	24.83	A	C
ATOM	3342	CE2	PHE	A	446	30.945	69.057	11.553	1.00	24.06	A	C
ATOM	3343	CZ	PHE	A	446	30.990	68.820	10.193	1.00	23.70	A	C
ATOM	3344	C	PHE	A	446	27.405	72.096	10.930	1.00	23.34	A	C
ATOM	3345	O	PHE	A	446	28.418	72.768	10.752	1.00	22.92	A	O
ATOM	3346	N	LEU	A	447	26.469	71.935	10.002	1.00	21.72	A	N
ATOM	3347	CA	LEU	A	447	26.589	72.526	8.690	1.00	20.26	A	C
ATOM	3348	CB	LEU	A	447	25.481	72.025	7.789	1.00	17.83	A	C
ATOM	3349	CG	LEU	A	447	25.495	70.503	7.712	1.00	17.96	A	C
ATOM	3350	CD1	LEU	A	447	24.416	69.995	6.766	1.00	17.82	A	C
ATOM	3351	CD2	LEU	A	447	26.848	70.060	7.238	1.00	17.08	A	C
ATOM	3352	C	LEU	A	447	26.586	74.026	8.715	1.00	22.05	A	C
ATOM	3353	O	LEU	A	447	27.430	74.648	8.085	1.00	23.67	A	O
ATOM	3354	N	PHE	A	448	25.650	74.631	9.428	1.00	21.86	A	N
ATOM	3355	CA	PHE	A	448	25.661	76.077	9.439	1.00	21.86	A	C
ATOM	3356	CB	PHE	A	448	24.498	76.671	10.205	1.00	19.53	A	C
ATOM	3357	CG	PHE	A	448	23.189	76.334	9.651	1.00	15.69	A	C
ATOM	3358	CD1	PHE	A	448	23.057	75.971	8.336	1.00	15.42	A	C
ATOM	3359	CD2	PHE	A	448	22.072	76.371	10.452	1.00	17.66	A	C
ATOM	3360	CE1	PHE	A	448	21.825	75.645	7.824	1.00	16.95	A	C
ATOM	3361	CE2	PHE	A	448	20.829	76.045	9.942	1.00	17.45	A	C
ATOM	3362	CZ	PHE	A	448	20.709	75.683	8.632	1.00	16.51	A	C
ATOM	3363	C	PHE	A	448	26.913	76.586	10.086	1.00	22.75	A	C
ATOM	3364	O	PHE	A	448	27.481	77.567	9.632	1.00	23.73	A	O
ATOM	3365	N	LEU	A	449	27.345	75.944	11.160	1.00	22.90	A	N
ATOM	3366	CA	LEU	A	449	28.523	76.463	11.818	1.00	24.75	A	C
ATOM	3367	CB	LEU	A	449	28.745	75.810	13.175	1.00	25.71	A	C
ATOM	3368	CG	LEU	A	449	27.856	76.231	14.335	1.00	27.57	A	C
ATOM	3369	CD1	LEU	A	449	28.475	75.627	15.574	1.00	28.10	A	C
ATOM	3370	CD2	LEU	A	449	27.777	77.755	14.481	1.00	26.89	A	C
ATOM	3371	C	LEU	A	449	29.793	76.346	10.991	1.00	25.53	A	C
ATOM	3372	O	LEU	A	449	30.533	77.314	10.821	1.00	25.62	A	O

242/514

Figure 3

ATOM	3373	N	THR	A	450	30.058	75.165	10.467	1.00	24.80	A	N
ATOM	3374	CA	THR	A	450	31.255	75.007	9.691	1.00	23.65	A	C
ATOM	3375	CB	THR	A	450	31.367	73.586	9.243	1.00	22.78	A	C
ATOM	3376	OG1	THR	A	450	30.263	73.267	8.400	1.00	23.06	A	O
ATOM	3377	CG2	THR	A	450	31.337	72.682	10.476	1.00	21.60	A	C
ATOM	3378	C	THR	A	450	31.153	75.992	8.541	1.00	25.01	A	C
ATOM	3379	O	THR	A	450	32.039	76.823	8.339	1.00	27.20	A	O
ATOM	3380	N	SER	A	451	30.040	75.946	7.827	1.00	26.00	A	N
ATOM	3381	CA	SER	A	451	29.829	76.848	6.703	1.00	27.09	A	C
ATOM	3382	CB	SER	A	451	28.384	76.790	6.251	1.00	29.61	A	C
ATOM	3383	OG	SER	A	451	28.324	76.273	4.936	1.00	33.86	A	O
ATOM	3384	C	SER	A	451	30.173	78.296	7.013	1.00	27.79	A	C
ATOM	3385	O	SER	A	451	30.876	78.942	6.252	1.00	30.04	A	O
ATOM	3386	N	ILE	A	452	29.663	78.806	8.123	1.00	26.02	A	N
ATOM	3387	CA	ILE	A	452	29.913	80.175	8.508	1.00	23.58	A	C
ATOM	3388	CB	ILE	A	452	29.208	80.462	9.825	1.00	22.95	A	C
ATOM	3389	CG2	ILE	A	452	29.771	81.728	10.469	1.00	22.34	A	C
ATOM	3390	CG1	ILE	A	452	27.701	80.486	9.587	1.00	22.89	A	C
ATOM	3391	CD1	ILE	A	452	26.888	80.574	10.841	1.00	22.31	A	C
ATOM	3392	C	ILE	A	452	31.390	80.456	8.660	1.00	24.41	A	C
ATOM	3393	O	ILE	A	452	31.888	81.493	8.232	1.00	24.75	A	O
ATOM	3394	N	LEU	A	453	32.083	79.515	9.284	1.00	26.62	A	N
ATOM	3395	CA	LEU	A	453	33.514	79.628	9.551	1.00	27.24	A	C
ATOM	3396	CB	LEU	A	453	33.884	78.688	10.696	1.00	26.43	A	C
ATOM	3397	CG	LEU	A	453	33.378	79.122	12.070	1.00	27.77	A	C
ATOM	3398	CD1	LEU	A	453	33.693	78.075	13.114	1.00	27.38	A	C
ATOM	3399	CD2	LEU	A	453	34.024	80.441	12.440	1.00	27.31	A	C
ATOM	3400	C	LEU	A	453	34.379	79.328	8.340	1.00	28.11	A	C
ATOM	3401	O	LEU	A	453	35.495	79.830	8.223	1.00	27.06	A	O
ATOM	3402	N	GLN	A	454	33.865	78.488	7.454	1.00	30.06	A	N
ATOM	3403	CA	GLN	A	454	34.604	78.145	6.258	1.00	34.08	A	C
ATOM	3404	CB	GLN	A	454	33.880	77.042	5.477	1.00	33.09	A	C
ATOM	3405	CG	GLN	A	454	34.186	77.030	3.980	1.00	33.28	A	C
ATOM	3406	CD	GLN	A	454	33.391	75.981	3.205	1.00	35.10	A	C
ATOM	3407	OE1	GLN	A	454	33.779	74.817	3.150	1.00	36.20	A	O
ATOM	3408	NE2	GLN	A	454	32.269	76.394	2.603	1.00	36.25	A	N
ATOM	3409	C	GLN	A	454	34.732	79.390	5.394	1.00	37.76	A	C
ATOM	3410	O	GLN	A	454	35.717	79.575	4.676	1.00	40.25	A	O
ATOM	3411	N	ASN	A	455	33.741	80.269	5.499	1.00	41.15	A	N
ATOM	3412	CA	ASN	A	455	33.684	81.493	4.691	1.00	41.20	A	C
ATOM	3413	CB	ASN	A	455	32.285	81.627	4.110	1.00	40.40	A	C
ATOM	3414	CG	ASN	A	455	32.073	80.721	2.931	1.00	39.54	A	C
ATOM	3415	OD1	ASN	A	455	32.475	81.050	1.811	1.00	42.97	A	O
ATOM	3416	ND2	ASN	A	455	31.445	79.568	3.162	1.00	38.06	A	N
ATOM	3417	C	ASN	A	455	34.049	82.797	5.362	1.00	42.11	A	C
ATOM	3418	O	ASN	A	455	34.508	83.734	4.699	1.00	43.32	A	O
ATOM	3419	N	PHE	A	456	33.839	82.862	6.669	1.00	43.44	A	N
ATOM	3420	CA	PHE	A	456	34.104	84.084	7.407	1.00	44.37	A	C
ATOM	3421	CB	PHE	A	456	32.803	84.693	7.904	1.00	43.34	A	C
ATOM	3422	CG	PHE	A	456	31.767	84.834	6.851	1.00	43.01	A	C
ATOM	3423	CD1	PHE	A	456	31.741	85.955	6.038	1.00	43.21	A	C
ATOM	3424	CD2	PHE	A	456	30.813	83.838	6.669	1.00	41.91	A	C
ATOM	3425	CE1	PHE	A	456	30.784	86.087	5.059	1.00	41.89	A	C
ATOM	3426	CE2	PHE	A	456	29.843	83.955	5.688	1.00	43.45	A	C
ATOM	3427	CZ	PHE	A	456	29.826	85.086	4.879	1.00	43.35	A	C
ATOM	3428	C	PHE	A	456	34.955	83.882	8.621	1.00	45.67	A	C
ATOM	3429	O	PHE	A	456	34.991	82.805	9.206	1.00	46.42	A	O
ATOM	3430	N	ASN	A	457	35.612	84.960	9.010	1.00	46.96	A	N
ATOM	3431	CA	ASN	A	457	36.435	84.980	10.198	1.00	48.94	A	C
ATOM	3432	CB	ASN	A	457	37.815	85.537	9.857	1.00	49.81	A	C
ATOM	3433	CG	ASN	A	457	38.918	84.521	10.059	1.00	50.62	A	C
ATOM	3434	OD1	ASN	A	457	39.139	84.044	11.177	1.00	51.87	A	O
ATOM	3435	ND2	ASN	A	457	39.621	84.183	8.978	1.00	49.48	A	N
ATOM	3436	C	ASN	A	457	35.686	85.928	11.135	1.00	50.42	A	C
ATOM	3437	O	ASN	A	457	35.594	87.113	10.864	1.00	51.82	A	O
ATOM	3438	N	LEU	A	458	35.130	85.414	12.222	1.00	51.12	A	N
ATOM	3439	CA	LEU	A	458	34.388	86.276	13.129	1.00	52.15	A	C
ATOM	3440	CB	LEU	A	458	33.722	85.438	14.196	1.00	49.78	A	C
ATOM	3441	CG	LEU	A	458	33.087	84.237	13.533	1.00	47.91	A	C
ATOM	3442	CD1	LEU	A	458	32.549	83.342	14.608	1.00	48.30	A	C
ATOM	3443	CD2	LEU	A	458	31.992	84.668	12.569	1.00	47.96	A	C
ATOM	3444	C	LEU	A	458	35.251	87.331	13.794	1.00	54.45	A	C
ATOM	3445	O	LEU	A	458	36.403	87.074	14.145	1.00	54.89	A	O
ATOM	3446	N	LYS	A	459	34.677	88.518	13.974	1.00	57.91	A	N
ATOM	3447	CA	LYS	A	459	35.379	89.624	14.617	1.00	61.56	A	C

Figure 3

ATOM	3448	CB	LYS	A	459	36.224	90.394	13.595	1.00	62.67	A	C
ATOM	3449	CG	LYS	A	459	37.120	91.472	14.219	1.00	65.44	A	C
ATOM	3450	CD	LYS	A	459	37.876	92.284	13.161	1.00	66.44	A	C
ATOM	3451	CE	LYS	A	459	38.782	93.362	13.782	1.00	67.09	A	C
ATOM	3452	NZ	LYS	A	459	38.060	94.298	14.710	1.00	66.24	A	N
ATOM	3453	C	LYS	A	459	34.420	90.589	15.318	1.00	62.98	A	C
ATOM	3454	O	LYS	A	459	33.507	91.146	14.705	1.00	62.23	A	O
ATOM	3455	N	SER	A	460	34.644	90.786	16.613	1.00	66.31	A	N
ATOM	3456	CA	SER	A	460	33.820	91.683	17.411	1.00	69.11	A	C
ATOM	3457	CB	SER	A	460	33.801	91.231	18.880	1.00	69.18	A	C
ATOM	3458	OG	SER	A	460	32.971	92.065	19.673	1.00	69.48	A	O
ATOM	3459	C	SER	A	460	34.402	93.084	17.322	1.00	71.49	A	C
ATOM	3460	O	SER	A	460	35.350	93.329	16.572	1.00	72.05	A	O
ATOM	3461	N	LEU	A	461	33.830	94.001	18.092	1.00	74.03	A	N
ATOM	3462	CA	LEU	A	461	34.304	95.377	18.113	1.00	76.04	A	C
ATOM	3463	CB	LEU	A	461	33.380	96.276	17.293	1.00	76.87	A	C
ATOM	3464	CG	LEU	A	461	31.918	96.252	17.745	1.00	78.16	A	C
ATOM	3465	CD1	LEU	A	461	31.448	97.664	18.089	1.00	78.81	A	C
ATOM	3466	CD2	LEU	A	461	31.068	95.643	16.642	1.00	79.26	A	C
ATOM	3467	C	LEU	A	461	34.370	95.889	19.548	1.00	76.89	A	C
ATOM	3468	O	LEU	A	461	34.376	97.097	19.778	1.00	77.43	A	O
ATOM	3469	N	VAL	A	462	34.407	94.974	20.512	1.00	77.27	A	N
ATOM	3470	CA	VAL	A	462	34.484	95.383	21.908	1.00	76.69	A	C
ATOM	3471	CB	VAL	A	462	33.057	95.334	22.603	1.00	76.77	A	C
ATOM	3472	CG1	VAL	A	462	32.556	93.913	22.723	1.00	76.09	A	C
ATOM	3473	CG2	VAL	A	462	33.099	96.022	23.971	1.00	76.48	A	C
ATOM	3474	C	VAL	A	462	35.514	94.559	22.684	1.00	76.46	A	C
ATOM	3475	O	VAL	A	462	35.546	94.598	23.913	1.00	76.54	A	O
ATOM	3476	N	ASP	A	463	36.368	93.833	21.962	1.00	75.64	A	N
ATOM	3477	CA	ASP	A	463	37.412	93.029	22.601	1.00	75.43	A	C
ATOM	3478	CB	ASP	A	463	38.338	93.947	23.419	1.00	74.51	A	C
ATOM	3479	CG	ASP	A	463	39.337	93.177	24.271	1.00	75.86	A	C
ATOM	3480	OD1	ASP	A	463	40.136	92.386	23.709	1.00	76.62	A	O
ATOM	3481	OD2	ASP	A	463	39.332	93.369	25.508	1.00	75.97	A	O
ATOM	3482	C	ASP	A	463	36.820	91.932	23.502	1.00	75.02	A	C
ATOM	3483	O	ASP	A	463	36.232	92.223	24.550	1.00	75.06	A	O
ATOM	3484	N	PRO	A	464	37.003	90.653	23.118	1.00	73.77	A	N
ATOM	3485	CD	PRO	A	464	38.089	90.233	22.211	1.00	73.62	A	C
ATOM	3486	CA	PRO	A	464	36.496	89.488	23.860	1.00	72.81	A	C
ATOM	3487	CB	PRO	A	464	37.303	88.327	23.273	1.00	72.24	A	C
ATOM	3488	CG	PRO	A	464	38.605	88.985	22.903	1.00	72.60	A	C
ATOM	3489	C	PRO	A	464	36.671	89.585	25.376	1.00	72.06	A	C
ATOM	3490	O	PRO	A	464	35.744	89.296	26.152	1.00	73.87	A	O
ATOM	3491	N	LYS	A	465	37.880	89.983	25.772	1.00	71.15	A	N
ATOM	3492	CA	LYS	A	465	38.285	90.139	27.178	1.00	69.30	A	C
ATOM	3493	CB	LYS	A	465	39.509	91.086	27.254	1.00	69.35	A	C
ATOM	3494	CG	LYS	A	465	40.773	90.505	27.934	1.00	68.46	A	C
ATOM	3495	CD	LYS	A	465	40.618	90.349	29.473	1.00	67.14	A	C
ATOM	3496	CE	LYS	A	465	41.869	89.729	30.155	1.00	65.46	A	C
ATOM	3497	NZ	LYS	A	465	41.780	89.662	31.654	1.00	62.43	A	N
ATOM	3498	C	LYS	A	465	37.162	90.645	28.104	1.00	68.12	A	C
ATOM	3499	O	LYS	A	465	37.173	90.369	29.312	1.00	68.51	A	O
ATOM	3500	N	ASN	A	466	36.198	91.374	27.530	1.00	67.02	A	N
ATOM	3501	CA	ASN	A	466	35.060	91.936	28.281	1.00	66.90	A	C
ATOM	3502	CB	ASN	A	466	34.859	93.421	27.907	1.00	66.33	A	C
ATOM	3503	CG	ASN	A	466	36.144	94.251	28.048	1.00	68.89	A	C
ATOM	3504	OD1	ASN	A	466	36.680	94.419	29.154	1.00	67.33	A	O
ATOM	3505	ND2	ASN	A	466	36.643	94.766	26.923	1.00	67.92	A	N
ATOM	3506	C	ASN	A	466	33.732	91.165	28.078	1.00	66.63	A	C
ATOM	3507	O	ASN	A	466	33.279	90.475	28.996	1.00	68.29	A	O
ATOM	3508	N	LEU	A	467	33.136	91.275	26.882	1.00	65.79	A	N
ATOM	3509	CA	LEU	A	467	31.859	90.623	26.545	1.00	62.78	A	C
ATOM	3510	CB	LEU	A	467	31.789	90.326	25.040	1.00	62.38	A	C
ATOM	3511	CG	LEU	A	467	33.068	89.779	24.405	1.00	62.15	A	C
ATOM	3512	CD1	LEU	A	467	32.993	88.276	24.350	1.00	62.11	A	C
ATOM	3513	CD2	LEU	A	467	33.239	90.339	22.997	1.00	62.37	A	C
ATOM	3514	C	LEU	A	467	31.540	89.366	27.351	1.00	62.40	A	C
ATOM	3515	O	LEU	A	467	32.231	88.346	27.274	1.00	62.19	A	O
ATOM	3516	N	ASP	A	468	30.476	89.492	28.137	1.00	62.67	A	N
ATOM	3517	CA	ASP	A	468	29.941	88.465	29.034	1.00	62.68	A	C
ATOM	3518	CB	ASP	A	468	28.949	89.164	29.982	1.00	63.53	A	C
ATOM	3519	CG	ASP	A	468	28.339	88.237	31.014	1.00	65.71	A	C
ATOM	3520	OD1	ASP	A	468	27.626	87.279	30.630	1.00	68.02	A	O
ATOM	3521	OD2	ASP	A	468	28.570	88.479	32.222	1.00	64.88	A	O
ATOM	3522	C	ASP	A	468	29.249	87.364	28.233	1.00	61.35	A	C

Figure 3

ATOM	3523	O	ASP A 468	28.472	87.658	27.328	1.00	61.29	A	O
ATOM	3524	N	THR A 469	29.531	86.104	28.569	1.00	60.82	A	N
ATOM	3525	CA	THR A 469	28.935	84.954	27.877	1.00	60.21	A	C
ATOM	3526	CB	THR A 469	29.985	83.935	27.437	1.00	59.49	A	C
ATOM	3527	OG1	THR A 469	30.392	83.173	28.582	1.00	60.77	A	O
ATOM	3528	CG2	THR A 469	31.191	84.618	26.833	1.00	58.97	A	C
ATOM	3529	C	THR A 469	28.001	84.185	28.803	1.00	60.25	A	C
ATOM	3530	O	THR A 469	27.375	83.207	28.384	1.00	59.69	A	O
ATOM	3531	N	THR A 470	27.963	84.605	30.068	1.00	61.42	A	N
ATOM	3532	CA	THR A 470	27.127	83.990	31.104	1.00	62.83	A	C
ATOM	3533	CB	THR A 470	27.314	84.708	32.467	1.00	63.25	A	C
ATOM	3534	OG1	THR A 470	28.709	84.786	32.796	1.00	64.03	A	O
ATOM	3535	CG2	THR A 470	26.584	83.956	33.576	1.00	64.09	A	C
ATOM	3536	C	THR A 470	25.657	84.102	30.706	1.00	61.86	A	C
ATOM	3537	O	THR A 470	25.123	85.207	30.616	1.00	61.70	A	O
ATOM	3538	N	PRO A 471	24.979	82.957	30.489	1.00	61.74	A	N
ATOM	3539	CD	PRO A 471	25.445	81.621	30.902	1.00	62.91	A	C
ATOM	3540	CA	PRO A 471	23.565	82.903	30.090	1.00	62.45	A	C
ATOM	3541	CB	PRO A 471	23.189	81.434	30.297	1.00	62.45	A	C
ATOM	3542	CG	PRO A 471	24.486	80.711	30.161	1.00	63.34	A	C
ATOM	3543	C	PRO A 471	22.696	83.814	30.930	1.00	62.29	A	C
ATOM	3544	O	PRO A 471	23.036	84.124	32.068	1.00	63.24	A	O
ATOM	3545	N	VAL A 472	21.577	84.245	30.364	1.00	62.33	A	N
ATOM	3546	CA	VAL A 472	20.638	85.095	31.078	1.00	63.26	A	C
ATOM	3547	CB	VAL A 472	20.440	86.433	30.327	1.00	63.09	A	C
ATOM	3548	CG1	VAL A 472	19.271	87.211	30.910	1.00	63.58	A	C
ATOM	3549	CG2	VAL A 472	21.717	87.262	30.438	1.00	62.60	A	C
ATOM	3550	C	VAL A 472	19.359	84.268	31.144	1.00	63.75	A	C
ATOM	3551	O	VAL A 472	18.647	84.123	30.158	1.00	62.70	A	O
ATOM	3552	N	VAL A 473	19.098	83.698	32.313	1.00	67.22	A	N
ATOM	3553	CA	VAL A 473	17.933	82.848	32.502	1.00	71.16	A	C
ATOM	3554	CB	VAL A 473	18.206	81.755	33.577	1.00	71.75	A	C
ATOM	3555	CG1	VAL A 473	16.999	80.838	33.707	1.00	72.65	A	C
ATOM	3556	CG2	VAL A 473	19.456	80.945	33.221	1.00	72.53	A	C
ATOM	3557	C	VAL A 473	16.671	83.592	32.925	1.00	73.28	A	C
ATOM	3558	O	VAL A 473	16.722	84.518	33.750	1.00	74.08	A	O
ATOM	3559	N	ASN A 474	15.538	83.174	32.353	1.00	74.94	A	N
ATOM	3560	CA	ASN A 474	14.215	83.738	32.672	1.00	75.80	A	C
ATOM	3561	CB	ASN A 474	13.843	84.870	31.689	1.00	76.75	A	C
ATOM	3562	CG	ASN A 474	14.747	86.111	31.842	1.00	77.74	A	C
ATOM	3563	OD1	ASN A 474	15.565	86.410	30.964	1.00	78.76	A	O
ATOM	3564	ND2	ASN A 474	14.598	86.830	32.961	1.00	76.38	A	N
ATOM	3565	C	ASN A 474	13.150	82.628	32.677	1.00	75.53	A	C
ATOM	3566	O	ASN A 474	12.493	82.355	31.669	1.00	74.04	A	O
ATOM	3567	N	GLY A 475	13.005	81.997	33.841	1.00	76.14	A	N
ATOM	3568	CA	GLY A 475	12.042	80.922	34.027	1.00	77.22	A	C
ATOM	3569	C	GLY A 475	12.581	79.544	33.658	1.00	77.26	A	C
ATOM	3570	O	GLY A 475	13.567	79.065	34.244	1.00	77.82	A	O
ATOM	3571	N	PHE A 476	11.914	78.903	32.692	1.00	76.31	A	N
ATOM	3572	CA	PHE A 476	12.299	77.574	32.182	1.00	74.61	A	C
ATOM	3573	CB	PHE A 476	11.056	76.705	31.873	1.00	75.83	A	C
ATOM	3574	CG	PHE A 476	10.172	76.388	33.071	1.00	75.67	A	C
ATOM	3575	CD1	PHE A 476	8.838	75.994	32.861	1.00	75.97	A	C
ATOM	3576	CD2	PHE A 476	10.647	76.475	34.382	1.00	74.46	A	C
ATOM	3577	CE1	PHE A 476	7.991	75.700	33.929	1.00	75.55	A	C
ATOM	3578	CE2	PHE A 476	9.805	76.181	35.466	1.00	73.63	A	C
ATOM	3579	CZ	PHE A 476	8.475	75.794	35.242	1.00	74.44	A	C
ATOM	3580	C	PHE A 476	13.141	77.679	30.878	1.00	72.85	A	C
ATOM	3581	O	PHE A 476	13.279	76.687	30.147	1.00	73.17	A	O
ATOM	3582	N	ALA A 477	13.673	78.871	30.584	1.00	68.92	A	N
ATOM	3583	CA	ALA A 477	14.513	79.092	29.395	1.00	64.79	A	C
ATOM	3584	CB	ALA A 477	13.658	79.506	28.169	1.00	64.07	A	C
ATOM	3585	C	ALA A 477	15.580	80.156	29.669	1.00	62.07	A	C
ATOM	3586	O	ALA A 477	15.452	80.949	30.609	1.00	61.12	A	O
ATOM	3587	N	SER A 478	16.631	80.147	28.846	1.00	58.15	A	N
ATOM	3588	CA	SER A 478	17.747	81.089	28.938	1.00	54.58	A	C
ATOM	3589	CB	SER A 478	18.910	80.479	29.723	1.00	55.30	A	C
ATOM	3590	OG	SER A 478	19.258	79.207	29.207	1.00	57.14	A	O
ATOM	3591	C	SER A 478	18.201	81.418	27.521	1.00	50.41	A	C
ATOM	3592	O	SER A 478	18.046	80.609	26.610	1.00	50.09	A	O
ATOM	3593	N	VAL A 479	18.738	82.616	27.340	1.00	45.66	A	N
ATOM	3594	CA	VAL A 479	19.201	83.053	26.040	1.00	43.43	A	C
ATOM	3595	CB	VAL A 479	18.175	83.940	25.355	1.00	43.28	A	C
ATOM	3596	CG1	VAL A 479	16.902	83.155	25.102	1.00	44.04	A	C
ATOM	3597	CG2	VAL A 479	17.896	85.142	26.234	1.00	43.26	A	C

245/514

Figure 3

ATOM	3598	C	VAL	A	479	20.423	83.881	26.279	1.00	40.58	A	C
ATOM	3599	O	VAL	A	479	20.656	84.329	27.390	1.00	41.38	A	O
ATOM	3600	N	PRO	A	480	21.229	84.103	25.240	1.00	37.31	A	N
ATOM	3601	CD	PRO	A	480	21.120	83.616	23.858	1.00	36.99	A	C
ATOM	3602	CA	PRO	A	480	22.437	84.903	25.387	1.00	37.96	A	C
ATOM	3603	CB	PRO	A	480	23.233	84.540	24.153	1.00	35.71	A	C
ATOM	3604	CG	PRO	A	480	22.146	84.485	23.132	1.00	35.83	A	C
ATOM	3605	C	PRO	A	480	22.104	86.389	25.395	1.00	37.75	A	C
ATOM	3606	O	PRO	A	480	20.989	86.811	25.013	1.00	37.41	A	O
ATOM	3607	N	PRO	A	481	23.075	87.204	25.825	1.00	35.85	A	N
ATOM	3608	CD	PRO	A	481	24.368	86.832	26.425	1.00	36.77	A	C
ATOM	3609	CA	PRO	A	481	22.901	88.646	25.877	1.00	37.26	A	C
ATOM	3610	CB	PRO	A	481	24.101	89.096	26.688	1.00	36.28	A	C
ATOM	3611	CG	PRO	A	481	25.144	88.102	26.298	1.00	35.98	A	C
ATOM	3612	C	PRO	A	481	22.968	89.178	24.463	1.00	37.58	A	C
ATOM	3613	O	PRO	A	481	23.037	88.425	23.491	1.00	38.93	A	O
ATOM	3614	N	PHE	A	482	22.967	90.488	24.348	1.00	37.45	A	N
ATOM	3615	CA	PHE	A	482	23.047	91.071	23.050	1.00	38.65	A	C
ATOM	3616	CB	PHE	A	482	22.203	92.333	23.005	1.00	41.63	A	C
ATOM	3617	CG	PHE	A	482	22.637	93.305	21.972	1.00	44.00	A	C
ATOM	3618	CD1	PHE	A	482	23.704	94.159	22.229	1.00	45.84	A	C
ATOM	3619	CD2	PHE	A	482	21.992	93.376	20.744	1.00	44.53	A	C
ATOM	3620	CE1	PHE	A	482	24.128	95.076	21.282	1.00	47.38	A	C
ATOM	3621	CE2	PHE	A	482	22.407	94.294	19.780	1.00	46.45	A	C
ATOM	3622	CZ	PHE	A	482	23.481	95.148	20.052	1.00	47.08	A	C
ATOM	3623	C	PHE	A	482	24.501	91.352	22.749	1.00	38.80	A	C
ATOM	3624	O	PHE	A	482	25.298	91.671	23.644	1.00	38.59	A	O
ATOM	3625	N	TYR	A	483	24.843	91.212	21.475	1.00	39.07	A	N
ATOM	3626	CA	TYR	A	483	26.204	91.447	21.027	1.00	39.61	A	C
ATOM	3627	CB	TYR	A	483	27.085	90.268	21.418	1.00	38.85	A	C
ATOM	3628	CG	TYR	A	483	26.835	89.036	20.588	1.00	38.09	A	C
ATOM	3629	CD1	TYR	A	483	27.609	88.773	19.458	1.00	39.05	A	C
ATOM	3630	CE1	TYR	A	483	27.353	87.679	18.654	1.00	39.62	A	C
ATOM	3631	CD2	TYR	A	483	25.798	88.166	20.896	1.00	36.85	A	C
ATOM	3632	CE2	TYR	A	483	25.530	87.067	20.099	1.00	37.42	A	C
ATOM	3633	CZ	TYR	A	483	26.306	86.832	18.984	1.00	39.46	A	C
ATOM	3634	OH	TYR	A	483	26.031	85.755	18.177	1.00	43.22	A	O
ATOM	3635	C	TYR	A	483	26.225	91.626	19.520	1.00	40.22	A	C
ATOM	3636	O	TYR	A	483	25.291	91.240	18.816	1.00	39.29	A	O
ATOM	3637	N	GLN	A	484	27.303	92.216	19.038	1.00	42.76	A	N
ATOM	3638	CA	GLN	A	484	27.445	92.449	17.620	1.00	46.91	A	C
ATOM	3639	CB	GLN	A	484	27.391	93.946	17.314	1.00	50.30	A	C
ATOM	3640	CG	GLN	A	484	26.101	94.643	17.735	1.00	55.40	A	C
ATOM	3641	CD	GLN	A	484	26.104	96.122	17.347	1.00	56.71	A	C
ATOM	3642	OE1	GLN	A	484	26.990	96.887	17.774	1.00	58.03	A	O
ATOM	3643	NE2	GLN	A	484	25.116	96.533	16.537	1.00	56.99	A	N
ATOM	3644	C	GLN	A	484	28.770	91.889	17.131	1.00	48.19	A	C
ATOM	3645	O	GLN	A	484	29.691	91.671	17.925	1.00	49.64	A	O
ATOM	3646	N	LEU	A	485	28.865	91.677	15.820	1.00	47.76	A	N
ATOM	3647	CA	LEU	A	485	30.076	91.142	15.215	1.00	49.21	A	C
ATOM	3648	CB	LEU	A	485	30.131	89.637	15.438	1.00	50.10	A	C
ATOM	3649	CG	LEU	A	485	29.183	88.774	14.590	1.00	51.73	A	C
ATOM	3650	CD1	LEU	A	485	29.434	87.319	14.945	1.00	53.70	A	C
ATOM	3651	CD2	LEU	A	485	27.720	89.145	14.831	1.00	52.88	A	C
ATOM	3652	C	LEU	A	485	30.130	91.421	13.717	1.00	49.95	A	C
ATOM	3653	O	LEU	A	485	29.103	91.662	13.077	1.00	49.66	A	O
ATOM	3654	N	CYS	A	486	31.330	91.392	13.154	1.00	50.76	A	N
ATOM	3655	CA	CYS	A	486	31.469	91.609	11.719	1.00	52.34	A	C
ATOM	3656	CB	CYS	A	486	32.577	92.634	11.418	1.00	55.46	A	C
ATOM	3657	SG	CYS	A	486	32.369	94.292	12.168	1.00	63.36	A	S
ATOM	3658	C	CYS	A	486	31.818	90.278	11.045	1.00	51.17	A	C
ATOM	3659	O	CYS	A	486	32.725	89.573	11.487	1.00	52.54	A	O
ATOM	3660	N	PHE	A	487	31.087	89.925	9.992	1.00	48.15	A	N
ATOM	3661	CA	PHE	A	487	31.373	88.698	9.270	1.00	44.82	A	C
ATOM	3662	CB	PHE	A	487	30.098	88.098	8.670	1.00	40.77	A	C
ATOM	3663	CG	PHE	A	487	29.241	87.380	9.664	1.00	36.20	A	C
ATOM	3664	CD1	PHE	A	487	28.424	88.086	10.529	1.00	35.43	A	C
ATOM	3665	CD2	PHE	A	487	29.270	85.994	9.753	1.00	35.36	A	C
ATOM	3666	CE1	PHE	A	487	27.651	87.426	11.467	1.00	32.98	A	C
ATOM	3667	CE2	PHE	A	487	28.499	85.328	10.692	1.00	33.51	A	C
ATOM	3668	CZ	PHE	A	487	27.690	86.048	11.546	1.00	32.62	A	C
ATOM	3669	C	PHE	A	487	32.364	88.988	8.151	1.00	44.87	A	C
ATOM	3670	O	PHE	A	487	31.968	89.084	6.993	1.00	45.28	A	O
ATOM	3671	N	ILE	A	488	33.642	89.147	8.502	1.00	45.26	A	N
ATOM	3672	CA	ILE	A	488	34.687	89.411	7.513	1.00	46.28	A	C

Figure 3

ATOM	3673	CB	ILE A 488	36.086	89.664	8.160	1.00	44.71	A	C
ATOM	3674	CG2	ILE A 488	37.179	89.587	7.099	1.00	43.31	A	C
ATOM	3675	CG1	ILE A 488	36.130	91.029	8.833	1.00	43.75	A	C
ATOM	3676	CD1	ILE A 488	35.162	91.160	9.972	1.00	45.25	A	C
ATOM	3677	C	ILE A 488	34.830	88.186	6.623	1.00	49.07	A	C
ATOM	3678	O	ILE A 488	34.682	87.058	7.093	1.00	50.33	A	O
ATOM	3679	N	PRO A 489	35.110	88.392	5.327	1.00	51.37	A	N
ATOM	3680	CD	PRO A 489	34.984	89.687	4.640	1.00	52.69	A	C
ATOM	3681	CA	PRO A 489	35.286	87.313	4.353	1.00	52.99	A	C
ATOM	3682	CB	PRO A 489	35.423	88.056	3.033	1.00	53.87	A	C
ATOM	3683	CG	PRO A 489	34.602	89.268	3.243	1.00	53.92	A	C
ATOM	3684	C	PRO A 489	36.539	86.513	4.676	1.00	53.73	A	C
ATOM	3685	O	PRO A 489	36.769	86.143	5.826	1.00	55.87	A	O
ATOM	3686	N	VAL A 490	37.370	86.283	3.668	1.00	54.08	A	N
ATOM	3687	CA	VAL A 490	38.571	85.497	3.869	1.00	53.53	A	C
ATOM	3688	CB	VAL A 490	38.290	84.048	3.403	1.00	53.56	A	C
ATOM	3689	CG1	VAL A 490	37.394	83.346	4.411	1.00	51.64	A	C
ATOM	3690	CG2	VAL A 490	37.581	84.073	2.022	1.00	53.09	A	C
ATOM	3691	C	VAL A 490	39.836	86.065	3.188	1.00	54.58	A	C
ATOM	3692	O	VAL A 490	39.860	86.204	1.929	1.00	54.44	A	O
ATOM	3693	OXT	VAL A 490	40.804	86.354	3.946	1.00	53.98	A	O
TER	3693		VAL A 490							
ATOM	3694	FE1	HEM A 501	13.465	69.439	20.036	1.00	16.67	A	Fe
ATOM	3695	N2	HEM A 501	13.031	69.403	22.162	1.00	15.91	A	N
ATOM	3696	N3	HEM A 501	15.181	70.632	20.385	1.00	12.57	A	N
ATOM	3697	N4	HEM A 501	13.439	69.969	17.981	1.00	11.85	A	N
ATOM	3698	N5	HEM A 501	11.345	68.778	19.679	1.00	15.30	A	N
ATOM	3699	C6	HEM A 501	12.246	68.416	22.684	1.00	17.80	A	C
ATOM	3700	C7	HEM A 501	12.736	68.110	24.038	1.00	18.40	A	C
ATOM	3701	C8	HEM A 501	13.882	68.814	24.239	1.00	16.82	A	C
ATOM	3702	C9	HEM A 501	14.192	69.601	23.037	1.00	15.63	A	C
ATOM	3703	C10	HEM A 501	15.840	70.822	21.524	1.00	13.53	A	C
ATOM	3704	C11	HEM A 501	17.064	71.532	21.240	1.00	13.53	A	C
ATOM	3705	C12	HEM A 501	17.132	71.709	19.915	1.00	13.52	A	C
ATOM	3706	C13	HEM A 501	15.931	71.187	19.306	1.00	13.83	A	C
ATOM	3707	C14	HEM A 501	14.396	70.684	17.354	1.00	13.88	A	C
ATOM	3708	C15	HEM A 501	14.051	70.791	15.949	1.00	14.61	A	C
ATOM	3709	C16	HEM A 501	12.845	70.259	15.753	1.00	16.46	A	C
ATOM	3710	C17	HEM A 501	12.356	69.730	17.037	1.00	14.40	A	C
ATOM	3711	C18	HEM A 501	10.617	68.692	18.564	1.00	14.87	A	C
ATOM	3712	C19	HEM A 501	9.322	68.073	18.885	1.00	15.38	A	C
ATOM	3713	C20	HEM A 501	9.384	67.624	20.150	1.00	16.21	A	C
ATOM	3714	C21	HEM A 501	10.652	68.080	20.747	1.00	16.79	A	C
ATOM	3715	C22	HEM A 501	11.063	67.833	22.014	1.00	16.79	A	C
ATOM	3716	C23	HEM A 501	15.337	70.319	22.820	1.00	14.27	A	C
ATOM	3717	C24	HEM A 501	15.632	71.237	18.009	1.00	14.50	A	C
ATOM	3718	C25	HEM A 501	11.116	69.193	17.256	1.00	17.30	A	C
ATOM	3719	C26	HEM A 501	14.647	69.031	25.495	1.00	15.35	A	C
ATOM	3720	C27	HEM A 501	12.141	66.930	24.851	1.00	17.00	A	C
ATOM	3721	C28	HEM A 501	11.206	67.181	26.049	1.00	21.69	A	C
ATOM	3722	C29	HEM A 501	11.233	65.927	26.977	1.00	21.98	A	C
ATOM	3723	O30	HEM A 501	10.509	64.911	26.470	1.00	24.24	A	O
ATOM	3724	O31	HEM A 501	11.870	65.846	27.958	1.00	21.51	A	O
ATOM	3725	C32	HEM A 501	18.174	71.672	22.290	1.00	13.95	A	C
ATOM	3726	C33	HEM A 501	18.058	72.576	19.093	1.00	17.36	A	C
ATOM	3727	C34	HEM A 501	19.500	72.120	19.072	1.00	19.30	A	C
ATOM	3728	C35	HEM A 501	14.870	71.653	15.010	1.00	11.84	A	C
ATOM	3729	C36	HEM A 501	12.145	69.851	14.468	1.00	16.89	A	C
ATOM	3730	C37	HEM A 501	12.033	68.333	14.215	1.00	21.33	A	C
ATOM	3731	C38	HEM A 501	8.267	67.787	17.851	1.00	13.95	A	C
ATOM	3732	C39	HEM A 501	8.304	66.922	20.986	1.00	15.82	A	C
ATOM	3733	C40	HEM A 501	8.808	65.604	21.615	1.00	21.57	A	C
ATOM	3734	C41	HEM A 501	7.669	64.700	22.104	1.00	25.67	A	C
ATOM	3735	O42	HEM A 501	7.355	63.684	21.569	1.00	28.06	A	O
ATOM	3736	O43	HEM A 501	7.071	65.193	23.198	1.00	28.44	A	O
ATOM	3737	CB	PRO B 30	76.547	14.662	56.738	1.00	45.67	B	C
ATOM	3738	CG	PRO B 30	75.166	14.317	56.232	1.00	45.95	B	C
ATOM	3739	C	PRO B 30	77.102	15.644	58.945	1.00	49.33	B	C
ATOM	3740	O	PRO B 30	76.714	16.799	58.885	1.00	50.63	B	O
ATOM	3741	N	PRO B 30	74.898	14.682	58.545	1.00	46.46	B	N
ATOM	3742	CD	PRO B 30	74.158	14.865	57.289	1.00	47.64	B	C
ATOM	3743	CA	PRO B 30	76.351	14.539	58.239	1.00	47.86	B	C
ATOM	3744	N	PRO B 31	78.213	15.301	59.600	1.00	50.79	B	N
ATOM	3745	CD	PRO B 31	78.917	14.045	59.304	1.00	51.70	B	C
ATOM	3746	CA	PRO B 31	79.083	16.203	60.358	1.00	50.90	B	C

247/514

Figure 3

ATOM	3747	CB	PRO B	31	80.223	15.293	60.789	1.00	51.50	B	C
ATOM	3748	CG	PRO B	31	80.370	14.407	59.593	1.00	52.83	B	C
ATOM	3749	C	PRO B	31	79.561	17.355	59.513	1.00	50.47	B	C
ATOM	3750	O	PRO B	31	79.297	17.393	58.312	1.00	50.48	B	O
ATOM	3751	N	GLY B	32	80.254	18.292	60.155	1.00	50.63	B	N
ATOM	3752	CA	GLY B	32	80.783	19.459	59.467	1.00	51.38	B	C
ATOM	3753	C	GLY B	32	81.017	20.618	60.414	1.00	52.13	B	C
ATOM	3754	O	GLY B	32	80.501	20.598	61.534	1.00	52.66	B	O
ATOM	3755	N	PRO B	33	81.797	21.633	60.010	1.00	51.39	B	N
ATOM	3756	CD	PRO B	33	82.509	21.844	58.741	1.00	51.17	B	C
ATOM	3757	CA	PRO B	33	82.023	22.756	60.916	1.00	51.37	B	C
ATOM	3758	CB	PRO B	33	83.071	23.592	60.184	1.00	51.19	B	C
ATOM	3759	CG	PRO B	33	82.764	23.332	58.762	1.00	50.77	B	C
ATOM	3760	C	PRO B	33	80.725	23.508	61.117	1.00	51.33	B	C
ATOM	3761	O	PRO B	33	79.909	23.608	60.194	1.00	50.57	B	O
ATOM	3762	N	THR B	34	80.531	24.012	62.333	1.00	52.77	B	N
ATOM	3763	CA	THR B	34	79.331	24.757	62.654	1.00	52.72	B	C
ATOM	3764	CB	THR B	34	79.139	24.925	64.182	1.00	52.49	B	C
ATOM	3765	OG1	THR B	34	80.409	24.874	64.845	1.00	54.30	B	O
ATOM	3766	CG2	THR B	34	78.240	23.823	64.726	1.00	50.85	B	C
ATOM	3767	C	THR B	34	79.460	26.100	61.965	1.00	53.91	B	C
ATOM	3768	O	THR B	34	80.512	26.751	62.013	1.00	52.15	B	O
ATOM	3769	N	PRO B	35	78.393	26.505	61.261	1.00	54.69	B	N
ATOM	3770	CD	PRO B	35	77.241	25.633	60.944	1.00	54.14	B	C
ATOM	3771	CA	PRO B	35	78.308	27.763	60.518	1.00	55.56	B	C
ATOM	3772	CB	PRO B	35	77.277	27.446	59.449	1.00	55.92	B	C
ATOM	3773	CG	PRO B	35	76.326	26.564	60.185	1.00	55.05	B	C
ATOM	3774	C	PRO B	35	77.894	28.948	61.372	1.00	57.37	B	C
ATOM	3775	O	PRO B	35	77.403	28.793	62.487	1.00	58.50	B	O
ATOM	3776	N	LEU B	36	78.091	30.140	60.837	1.00	58.65	B	N
ATOM	3777	CA	LEU B	36	77.727	31.332	61.557	1.00	60.21	B	C
ATOM	3778	CB	LEU B	36	78.779	32.413	61.353	1.00	59.23	B	C
ATOM	3779	CG	LEU B	36	80.132	32.071	61.969	1.00	58.27	B	C
ATOM	3780	CD1	LEU B	36	81.076	33.242	61.762	1.00	57.20	B	C
ATOM	3781	CD2	LEU B	36	79.983	31.757	63.452	1.00	57.42	B	C
ATOM	3782	C	LEU B	36	76.360	31.820	61.112	1.00	62.23	B	C
ATOM	3783	O	LEU B	36	75.832	31.390	60.083	1.00	62.80	B	O
ATOM	3784	N	PRO B	37	75.775	32.739	61.891	1.00	63.73	B	N
ATOM	3785	CD	PRO B	37	76.394	33.398	63.063	1.00	64.36	B	C
ATOM	3786	CA	PRO B	37	74.461	33.309	61.613	1.00	63.85	B	C
ATOM	3787	CB	PRO B	37	74.511	34.627	62.373	1.00	64.88	B	C
ATOM	3788	CG	PRO B	37	75.269	34.244	63.616	1.00	64.19	B	C
ATOM	3789	C	PRO B	37	74.050	33.475	60.142	1.00	64.21	B	C
ATOM	3790	O	PRO B	37	73.076	32.863	59.705	1.00	65.47	B	O
ATOM	3791	N	VAL B	38	74.772	34.277	59.368	1.00	62.27	B	N
ATOM	3792	CA	VAL B	38	74.362	34.472	57.984	1.00	61.21	B	C
ATOM	3793	CB	VAL B	38	73.896	35.923	57.770	1.00	61.85	B	C
ATOM	3794	CG1	VAL B	38	75.072	36.877	57.954	1.00	62.61	B	C
ATOM	3795	CG2	VAL B	38	73.269	36.080	56.393	1.00	61.49	B	C
ATOM	3796	C	VAL B	38	75.427	34.145	56.947	1.00	60.31	B	C
ATOM	3797	O	VAL B	38	75.117	33.673	55.853	1.00	59.94	B	O
ATOM	3798	N	ILE B	39	76.683	34.390	57.288	1.00	58.18	B	N
ATOM	3799	CA	ILE B	39	77.751	34.126	56.352	1.00	56.45	B	C
ATOM	3800	CB	ILE B	39	79.068	34.732	56.834	1.00	56.75	B	C
ATOM	3801	CG2	ILE B	39	78.860	36.199	57.158	1.00	55.59	B	C
ATOM	3802	CG1	ILE B	39	79.571	33.996	58.063	1.00	56.74	B	C
ATOM	3803	CD1	ILE B	39	80.904	34.501	58.548	1.00	59.13	B	C
ATOM	3804	C	ILE B	39	77.927	32.627	56.108	1.00	55.54	B	C
ATOM	3805	O	ILE B	39	78.266	32.202	55.004	1.00	55.67	B	O
ATOM	3806	N	GLY B	40	77.668	31.817	57.128	1.00	54.07	B	N
ATOM	3807	CA	GLY B	40	77.824	30.382	56.966	1.00	51.25	B	C
ATOM	3808	C	GLY B	40	79.229	29.949	57.344	1.00	49.28	B	C
ATOM	3809	O	GLY B	40	79.722	30.315	58.407	1.00	49.68	B	O
ATOM	3810	N	ASN B	41	79.891	29.193	56.474	1.00	46.90	B	N
ATOM	3811	CA	ASN B	41	81.246	28.724	56.761	1.00	44.27	B	C
ATOM	3812	CB	ASN B	41	81.398	27.288	56.343	1.00	42.88	B	C
ATOM	3813	CG	ASN B	41	80.787	26.356	57.318	1.00	42.46	B	C
ATOM	3814	OD1	ASN B	41	81.219	26.286	58.473	1.00	43.21	B	O
ATOM	3815	ND2	ASN B	41	79.767	25.624	56.878	1.00	41.81	B	N
ATOM	3816	C	ASN B	41	82.317	29.502	56.069	1.00	44.12	B	C
ATOM	3817	O	ASN B	41	83.496	29.234	56.254	1.00	43.24	B	O
ATOM	3818	N	ILE B	42	81.891	30.444	55.241	1.00	45.12	B	N
ATOM	3819	CA	ILE B	42	82.798	31.280	54.482	1.00	45.91	B	C
ATOM	3820	CB	ILE B	42	82.109	32.573	54.073	1.00	45.18	B	C
ATOM	3821	CG2	ILE B	42	81.753	33.381	55.312	1.00	43.63	B	C

Figure 3

ATOM	3822	CG1	ILE	B	42	83.023	33.375	53.164	1.00	45.53	B	C
ATOM	3823	CD1	ILE	B	42	82.400	34.651	52.643	1.00	44.86	B	C
ATOM	3824	C	ILE	B	42	84.049	31.622	55.270	1.00	47.39	B	C
ATOM	3825	O	ILE	B	42	85.122	31.803	54.702	1.00	48.29	B	O
ATOM	3826	N	LEU	B	43	83.912	31.702	56.583	1.00	50.03	B	N
ATOM	3827	CA	LEU	B	43	85.039	32.040	57.424	1.00	52.36	B	C
ATOM	3828	CB	LEU	B	43	84.543	32.320	58.834	1.00	51.14	B	C
ATOM	3829	CG	LEU	B	43	85.371	33.396	59.511	1.00	50.40	B	C
ATOM	3830	CD1	LEU	B	43	85.420	34.657	58.632	1.00	49.55	B	C
ATOM	3831	CD2	LEU	B	43	84.749	33.696	60.864	1.00	51.07	B	C
ATOM	3832	C	LEU	B	43	86.060	30.913	57.447	1.00	53.97	B	C
ATOM	3833	O	LEU	B	43	87.220	31.111	57.806	1.00	55.06	B	O
ATOM	3834	N	GLN	B	44	85.603	29.730	57.052	1.00	55.10	B	N
ATOM	3835	CA	GLN	B	44	86.413	28.520	57.034	1.00	55.99	B	C
ATOM	3836	CB	GLN	B	44	85.540	27.313	57.399	1.00	59.02	B	C
ATOM	3837	CG	GLN	B	44	84.814	27.371	58.750	1.00	64.16	B	C
ATOM	3838	CD	GLN	B	44	85.698	26.950	59.916	1.00	67.79	B	C
ATOM	3839	OE1	GLN	B	44	85.206	26.437	60.927	1.00	70.42	B	O
ATOM	3840	NE2	GLN	B	44	87.007	27.175	59.787	1.00	69.52	B	N
ATOM	3841	C	GLN	B	44	87.044	28.267	55.659	1.00	55.51	B	C
ATOM	3842	O	GLN	B	44	88.255	28.390	55.484	1.00	55.85	B	O
ATOM	3843	N	ILE	B	45	86.212	27.911	54.686	1.00	53.32	B	N
ATOM	3844	CA	ILE	B	45	86.691	27.615	53.352	1.00	51.63	B	C
ATOM	3845	CB	ILE	B	45	85.551	27.130	52.482	1.00	50.36	B	C
ATOM	3846	CG2	ILE	B	45	84.765	26.075	53.223	1.00	48.63	B	C
ATOM	3847	CG1	ILE	B	45	84.601	28.270	52.186	1.00	50.13	B	C
ATOM	3848	CD1	ILE	B	45	83.444	27.852	51.325	1.00	51.05	B	C
ATOM	3849	C	ILE	B	45	87.357	28.808	52.677	1.00	52.13	B	C
ATOM	3850	O	ILE	B	45	88.176	28.648	51.772	1.00	53.60	B	O
ATOM	3851	N	GLY	B	46	87.020	30.015	53.102	1.00	53.05	B	N
ATOM	3852	CA	GLY	B	46	87.640	31.172	52.486	1.00	53.95	B	C
ATOM	3853	C	GLY	B	46	86.982	31.605	51.196	1.00	54.99	B	C
ATOM	3854	O	GLY	B	46	85.762	31.713	51.096	1.00	55.97	B	O
ATOM	3855	N	ILE	B	47	87.796	31.835	50.178	1.00	56.79	B	N
ATOM	3856	CA	ILE	B	47	87.268	32.308	48.905	1.00	58.47	B	C
ATOM	3857	CB	ILE	B	47	86.780	33.748	49.092	1.00	57.80	B	C
ATOM	3858	CG2	ILE	B	47	87.910	34.589	49.694	1.00	56.72	B	C
ATOM	3859	CG1	ILE	B	47	86.270	34.313	47.779	1.00	59.12	B	C
ATOM	3860	CD1	ILE	B	47	85.858	35.763	47.898	1.00	61.31	B	C
ATOM	3861	C	ILE	B	47	88.372	32.243	47.842	1.00	60.13	B	C
ATOM	3862	O	ILE	B	47	88.114	32.314	46.637	1.00	58.75	B	O
ATOM	3863	N	LYS	B	48	89.601	32.105	48.341	1.00	61.39	B	N
ATOM	3864	CA	LYS	B	48	90.819	31.992	47.552	1.00	63.32	B	C
ATOM	3865	CB	LYS	B	48	92.026	32.447	48.404	1.00	65.16	B	C
ATOM	3866	CG	LYS	B	48	92.006	31.960	49.882	1.00	68.26	B	C
ATOM	3867	CD	LYS	B	48	92.624	32.966	50.914	1.00	68.15	B	C
ATOM	3868	CE	LYS	B	48	92.395	32.511	52.381	1.00	67.65	B	C
ATOM	3869	NZ	LYS	B	48	92.781	33.502	53.431	1.00	64.57	B	N
ATOM	3870	C	LYS	B	48	90.953	30.535	47.059	1.00	64.00	B	C
ATOM	3871	O	LYS	B	48	90.445	30.213	45.981	1.00	64.64	B	O
ATOM	3872	N	ASP	B	49	91.594	29.650	47.831	1.00	63.38	B	N
ATOM	3873	CA	ASP	B	49	91.752	28.231	47.435	1.00	62.53	B	C
ATOM	3874	CB	ASP	B	49	93.184	27.726	47.727	1.00	63.62	B	C
ATOM	3875	CG	ASP	B	49	93.522	26.404	47.003	1.00	64.89	B	C
ATOM	3876	OD1	ASP	B	49	94.693	25.949	47.100	1.00	63.90	B	O
ATOM	3877	OD2	ASP	B	49	92.629	25.819	46.333	1.00	66.46	B	O
ATOM	3878	C	ASP	B	49	90.748	27.360	48.186	1.00	60.66	B	C
ATOM	3879	O	ASP	B	49	91.099	26.631	49.117	1.00	60.61	B	O
ATOM	3880	N	ILE	B	50	89.494	27.437	47.767	1.00	58.74	B	N
ATOM	3881	CA	ILE	B	50	88.440	26.676	48.402	1.00	57.73	B	C
ATOM	3882	CB	ILE	B	50	87.067	26.995	47.729	1.00	57.22	B	C
ATOM	3883	CG2	ILE	B	50	87.114	28.378	47.092	1.00	57.89	B	C
ATOM	3884	CG1	ILE	B	50	86.754	25.995	46.625	1.00	58.76	B	C
ATOM	3885	CD1	ILE	B	50	85.832	24.919	47.072	1.00	58.46	B	C
ATOM	3886	C	ILE	B	50	88.766	25.183	48.347	1.00	57.10	B	C
ATOM	3887	O	ILE	B	50	88.350	24.410	49.215	1.00	56.67	B	O
ATOM	3888	N	SER	B	51	89.529	24.766	47.346	1.00	56.54	B	N
ATOM	3889	CA	SER	B	51	89.865	23.355	47.273	1.00	57.44	B	C
ATOM	3890	CB	SER	B	51	90.616	23.012	45.995	1.00	58.96	B	C
ATOM	3891	OG	SER	B	51	91.065	21.659	46.075	1.00	60.05	B	O
ATOM	3892	C	SER	B	51	90.710	22.890	48.446	1.00	56.95	B	C
ATOM	3893	O	SER	B	51	90.293	22.019	49.195	1.00	56.91	B	O
ATOM	3894	N	LYS	B	52	91.901	23.466	48.586	1.00	56.48	B	N
ATOM	3895	CA	LYS	B	52	92.819	23.097	49.653	1.00	56.04	B	C
ATOM	3896	CB	LYS	B	52	94.068	23.990	49.619	1.00	59.24	B	C

Figure 3

ATOM	3897	CG	LYS	B	52	95.423	23.262	49.829	1.00	64.17	B	C
ATOM	3898	CD	LYS	B	52	95.844	22.360	48.624	1.00	67.46	B	C
ATOM	3899	CE	LYS	B	52	96.306	23.160	47.383	1.00	67.87	B	C
ATOM	3900	NZ	LYS	B	52	96.561	22.246	46.220	1.00	69.37	B	N
ATOM	3901	C	LYS	B	52	92.154	23.199	51.014	1.00	54.36	B	C
ATOM	3902	O	LYS	B	52	92.653	22.656	51.992	1.00	55.13	B	O
ATOM	3903	N	SER	B	53	91.034	23.902	51.088	1.00	50.67	B	N
ATOM	3904	CA	SER	B	53	90.346	24.029	52.357	1.00	47.30	B	C
ATOM	3905	CB	SER	B	53	89.448	25.253	52.356	1.00	47.45	B	C
ATOM	3906	OG	SER	B	53	90.221	26.407	52.098	1.00	49.17	B	O
ATOM	3907	C	SER	B	53	89.514	22.786	52.515	1.00	45.35	B	C
ATOM	3908	O	SER	B	53	89.342	22.275	53.616	1.00	45.51	B	O
ATOM	3909	N	LEU	B	54	88.993	22.290	51.402	1.00	42.35	B	N
ATOM	3910	CA	LEU	B	54	88.184	21.095	51.470	1.00	39.04	B	C
ATOM	3911	CB	LEU	B	54	87.544	20.807	50.121	1.00	36.42	B	C
ATOM	3912	CG	LEU	B	54	86.434	21.752	49.714	1.00	32.43	B	C
ATOM	3913	CD1	LEU	B	54	85.838	21.199	48.452	1.00	32.45	B	C
ATOM	3914	CD2	LEU	B	54	85.361	21.854	50.787	1.00	30.68	B	C
ATOM	3915	C	LEU	B	54	89.024	19.912	51.926	1.00	37.97	B	C
ATOM	3916	O	LEU	B	54	88.556	19.092	52.705	1.00	37.31	B	O
ATOM	3917	N	THR	B	55	90.266	19.830	51.460	1.00	37.26	B	N
ATOM	3918	CA	THR	B	55	91.128	18.728	51.858	1.00	37.55	B	C
ATOM	3919	CB	THR	B	55	92.478	18.740	51.096	1.00	37.35	B	C
ATOM	3920	OG1	THR	B	55	92.249	18.465	49.708	1.00	37.73	B	O
ATOM	3921	CG2	THR	B	55	93.421	17.686	51.651	1.00	36.42	B	C
ATOM	3922	C	THR	B	55	91.390	18.794	53.354	1.00	37.00	B	C
ATOM	3923	O	THR	B	55	91.198	17.810	54.059	1.00	38.32	B	O
ATOM	3924	N	ASN	B	56	91.820	19.946	53.852	1.00	35.82	B	N
ATOM	3925	CA	ASN	B	56	92.080	20.060	55.278	1.00	33.55	B	C
ATOM	3926	CB	ASN	B	56	92.569	21.451	55.624	1.00	34.80	B	C
ATOM	3927	CG	ASN	B	56	93.917	21.729	55.043	1.00	36.65	B	C
ATOM	3928	OD1	ASN	B	56	94.795	20.869	55.068	1.00	38.21	B	O
ATOM	3929	ND2	ASN	B	56	94.102	22.926	54.514	1.00	38.43	B	N
ATOM	3930	C	ASN	B	56	90.834	19.742	56.061	1.00	32.86	B	C
ATOM	3931	O	ASN	B	56	90.859	18.931	56.969	1.00	32.44	B	O
ATOM	3932	N	LEU	B	57	89.736	20.383	55.705	1.00	32.06	B	N
ATOM	3933	CA	LEU	B	57	88.495	20.121	56.382	1.00	32.17	B	C
ATOM	3934	CB	LEU	B	57	87.349	20.796	55.665	1.00	32.46	B	C
ATOM	3935	CG	LEU	B	57	87.242	22.263	56.011	1.00	33.28	B	C
ATOM	3936	CD1	LEU	B	57	86.470	22.948	54.926	1.00	33.96	B	C
ATOM	3937	CD2	LEU	B	57	86.589	22.435	57.372	1.00	32.34	B	C
ATOM	3938	C	LEU	B	57	88.206	18.648	56.447	1.00	32.89	B	C
ATOM	3939	O	LEU	B	57	87.571	18.188	57.377	1.00	33.55	B	O
ATOM	3940	N	SER	B	58	88.644	17.895	55.454	1.00	33.67	B	N
ATOM	3941	CA	SER	B	58	88.369	16.477	55.485	1.00	33.98	B	C
ATOM	3942	CB	SER	B	58	88.547	15.868	54.106	1.00	34.59	B	C
ATOM	3943	OG	SER	B	58	89.917	15.719	53.806	1.00	36.25	B	O
ATOM	3944	C	SER	B	58	89.264	15.745	56.472	1.00	34.63	B	C
ATOM	3945	O	SER	B	58	88.825	14.772	57.072	1.00	34.99	B	O
ATOM	3946	N	LYS	B	59	90.510	16.187	56.637	1.00	35.25	B	N
ATOM	3947	CA	LYS	B	59	91.407	15.520	57.571	1.00	35.63	B	C
ATOM	3948	CB	LYS	B	59	92.800	16.154	57.558	1.00	36.68	B	C
ATOM	3949	CG	LYS	B	59	93.591	15.929	56.267	1.00	40.81	B	C
ATOM	3950	CD	LYS	B	59	94.875	16.775	56.205	1.00	44.20	B	C
ATOM	3951	CE	LYS	B	59	96.148	15.934	56.303	1.00	45.65	B	C
ATOM	3952	NZ	LYS	B	59	97.364	16.748	56.021	1.00	46.73	B	N
ATOM	3953	C	LYS	B	59	90.841	15.590	58.973	1.00	35.70	B	C
ATOM	3954	O	LYS	B	59	91.213	14.804	59.845	1.00	35.70	B	O
ATOM	3955	N	VAL	B	60	89.924	16.513	59.200	1.00	35.22	B	N
ATOM	3956	CA	VAL	B	60	89.362	16.625	60.521	1.00	35.49	B	C
ATOM	3957	CB	VAL	B	60	89.465	18.062	61.042	1.00	35.32	B	C
ATOM	3958	CG1	VAL	B	60	88.803	19.002	60.078	1.00	37.03	B	C
ATOM	3959	CG2	VAL	B	60	88.815	18.165	62.410	1.00	37.09	B	C
ATOM	3960	C	VAL	B	60	87.914	16.192	60.632	1.00	35.57	B	C
ATOM	3961	O	VAL	B	60	87.448	15.880	61.716	1.00	35.63	B	O
ATOM	3962	N	TYR	B	61	87.191	16.152	59.527	1.00	35.76	B	N
ATOM	3963	CA	TYR	B	61	85.803	15.765	59.630	1.00	36.90	B	C
ATOM	3964	CB	TYR	B	61	84.922	16.861	59.036	1.00	39.68	B	C
ATOM	3965	CG	TYR	B	61	84.656	18.011	59.991	1.00	42.39	B	C
ATOM	3966	CD1	TYR	B	61	83.620	17.940	60.925	1.00	46.43	B	C
ATOM	3967	CE1	TYR	B	61	83.370	18.992	61.814	1.00	46.02	B	C
ATOM	3968	CD2	TYR	B	61	85.441	19.164	59.971	1.00	43.75	B	C
ATOM	3969	CE2	TYR	B	61	85.200	20.224	60.859	1.00	45.09	B	C
ATOM	3970	CZ	TYR	B	61	84.165	20.129	61.775	1.00	45.84	B	C
ATOM	3971	OH	TYR	B	61	83.918	21.150	62.670	1.00	48.49	B	O

Figure 3

ATOM	3972	C	TYR	B	61	85.498	14.425	58.988	1.00	36.91	B	C
ATOM	3973	O	TYR	B	61	84.512	13.786	59.331	1.00	37.90	B	O
ATOM	3974	N	GLY	B	62	86.346	13.997	58.063	1.00	36.89	B	N
ATOM	3975	CA	GLY	B	62	86.121	12.725	57.416	1.00	35.57	B	C
ATOM	3976	C	GLY	B	62	86.034	12.875	55.921	1.00	35.34	B	C
ATOM	3977	O	GLY	B	62	86.286	13.948	55.391	1.00	36.17	B	O
ATOM	3978	N	PRO	B	63	85.697	11.805	55.208	1.00	33.77	B	N
ATOM	3979	CD	PRO	B	63	85.688	10.418	55.685	1.00	33.67	B	C
ATOM	3980	CA	PRO	B	63	85.580	11.829	53.762	1.00	34.06	B	C
ATOM	3981	CB	PRO	B	63	85.820	10.386	53.390	1.00	35.46	B	C
ATOM	3982	CG	PRO	B	63	85.098	9.674	54.503	1.00	34.16	B	C
ATOM	3983	C	PRO	B	63	84.203	12.278	53.340	1.00	33.31	B	C
ATOM	3984	O	PRO	B	63	83.924	12.392	52.157	1.00	35.57	B	O
ATOM	3985	N	VAL	B	64	83.314	12.496	54.288	1.00	32.09	B	N
ATOM	3986	CA	VAL	B	64	81.989	12.931	53.895	1.00	31.43	B	C
ATOM	3987	CB	VAL	B	64	80.997	11.774	53.780	1.00	30.34	B	C
ATOM	3988	CG1	VAL	B	64	79.659	12.315	53.343	1.00	30.29	B	C
ATOM	3989	CG2	VAL	B	64	81.493	10.750	52.778	1.00	29.93	B	C
ATOM	3990	C	VAL	B	64	81.445	13.920	54.874	1.00	31.69	B	C
ATOM	3991	O	VAL	B	64	80.766	13.564	55.830	1.00	31.01	B	O
ATOM	3992	N	PHE	B	65	81.748	15.181	54.615	1.00	32.12	B	N
ATOM	3993	CA	PHE	B	65	81.307	16.239	55.489	1.00	33.39	B	C
ATOM	3994	CB	PHE	B	65	82.504	16.988	56.040	1.00	32.33	B	C
ATOM	3995	CG	PHE	B	65	83.444	17.512	54.990	1.00	31.47	B	C
ATOM	3996	CD1	PHE	B	65	84.297	16.664	54.300	1.00	30.56	B	C
ATOM	3997	CD2	PHE	B	65	83.555	18.869	54.771	1.00	30.74	B	C
ATOM	3998	CE1	PHE	B	65	85.252	17.175	53.430	1.00	31.15	B	C
ATOM	3999	CE2	PHE	B	65	84.509	19.377	53.901	1.00	31.52	B	C
ATOM	4000	CZ	PHE	B	65	85.352	18.529	53.239	1.00	31.80	B	C
ATOM	4001	C	PHE	B	65	80.378	17.229	54.828	1.00	34.52	B	C
ATOM	4002	O	PHE	B	65	80.346	17.330	53.604	1.00	36.25	B	O
ATOM	4003	N	THR	B	66	79.642	17.970	55.662	1.00	36.14	B	N
ATOM	4004	CA	THR	B	66	78.679	18.994	55.227	1.00	36.60	B	C
ATOM	4005	CB	THR	B	66	77.414	18.993	56.113	1.00	37.45	B	C
ATOM	4006	OG1	THR	B	66	76.896	17.661	56.226	1.00	40.47	B	O
ATOM	4007	CG2	THR	B	66	76.355	19.899	55.513	1.00	38.72	B	C
ATOM	4008	C	THR	B	66	79.279	20.397	55.306	1.00	36.37	B	C
ATOM	4009	O	THR	B	66	79.933	20.743	56.283	1.00	36.66	B	O
ATOM	4010	N	LEU	B	67	79.039	21.216	54.290	1.00	36.49	B	N
ATOM	4011	CA	LEU	B	67	79.565	22.569	54.311	1.00	37.45	B	C
ATOM	4012	CB	LEU	B	67	80.677	22.704	53.285	1.00	35.26	B	C
ATOM	4013	CG	LEU	B	67	81.938	23.317	53.887	1.00	34.88	B	C
ATOM	4014	CD1	LEU	B	67	82.303	22.591	55.150	1.00	33.85	B	C
ATOM	4015	CD2	LEU	B	67	83.072	23.258	52.887	1.00	35.14	B	C
ATOM	4016	C	LEU	B	67	78.474	23.597	54.062	1.00	39.38	B	C
ATOM	4017	O	LEU	B	67	77.464	23.285	53.446	1.00	40.15	B	O
ATOM	4018	N	TYR	B	68	78.651	24.818	54.547	1.00	42.08	B	N
ATOM	4019	CA	TYR	B	68	77.615	25.818	54.323	1.00	45.28	B	C
ATOM	4020	CB	TYR	B	68	77.015	26.313	55.650	1.00	46.41	B	C
ATOM	4021	CG	TYR	B	68	75.910	25.437	56.228	1.00	46.84	B	C
ATOM	4022	CD1	TYR	B	68	76.186	24.498	57.221	1.00	47.33	B	C
ATOM	4023	CE1	TYR	B	68	75.185	23.674	57.748	1.00	48.35	B	C
ATOM	4024	CD2	TYR	B	68	74.594	25.534	55.770	1.00	48.51	B	C
ATOM	4025	CE2	TYR	B	68	73.583	24.709	56.291	1.00	49.03	B	C
ATOM	4026	CZ	TYR	B	68	73.894	23.778	57.284	1.00	48.33	B	C
ATOM	4027	OH	TYR	B	68	72.913	22.952	57.802	1.00	50.71	B	O
ATOM	4028	C	TYR	B	68	78.031	27.022	53.488	1.00	47.41	B	C
ATOM	4029	O	TYR	B	68	78.795	27.880	53.922	1.00	47.91	B	O
ATOM	4030	N	PHE	B	69	77.519	27.067	52.266	1.00	48.63	B	N
ATOM	4031	CA	PHE	B	69	77.779	28.183	51.382	1.00	50.91	B	C
ATOM	4032	CB	PHE	B	69	77.901	27.727	49.942	1.00	49.97	B	C
ATOM	4033	CG	PHE	B	69	79.159	26.991	49.672	1.00	48.40	B	C
ATOM	4034	CD1	PHE	B	69	80.127	27.530	48.843	1.00	49.90	B	C
ATOM	4035	CD2	PHE	B	69	79.400	25.775	50.290	1.00	48.86	B	C
ATOM	4036	CE1	PHE	B	69	81.328	26.872	48.643	1.00	50.32	B	C
ATOM	4037	CE2	PHE	B	69	80.586	25.109	50.102	1.00	48.76	B	C
ATOM	4038	CZ	PHE	B	69	81.554	25.652	49.274	1.00	49.66	B	C
ATOM	4039	C	PHE	B	69	76.564	29.060	51.564	1.00	53.73	B	C
ATOM	4040	O	PHE	B	69	75.484	28.796	51.020	1.00	53.62	B	O
ATOM	4041	N	GLY	B	70	76.753	30.105	52.364	1.00	54.27	B	N
ATOM	4042	CA	GLY	B	70	75.673	31.018	52.679	1.00	54.26	B	C
ATOM	4043	C	GLY	B	70	74.741	30.267	53.599	1.00	54.00	B	C
ATOM	4044	O	GLY	B	70	75.094	29.968	54.741	1.00	53.92	B	O
ATOM	4045	N	LEU	B	71	73.547	29.964	53.110	1.00	53.56	B	N
ATOM	4046	CA	LEU	B	71	72.571	29.220	53.902	1.00	54.65	B	C

Figure 3

ATOM	4047	CB	LEU	B	71	71.236	29.973	53.983	1.00	56.55	B	C
ATOM	4048	CG	LEU	B	71	71.160	31.371	54.616	1.00	57.86	B	C
ATOM	4049	CD1	LEU	B	71	69.785	31.954	54.331	1.00	59.29	B	C
ATOM	4050	CD2	LEU	B	71	71.407	31.297	56.117	1.00	57.96	B	C
ATOM	4051	C	LEU	B	71	72.358	27.907	53.180	1.00	54.17	B	C
ATOM	4052	O	LEU	B	71	71.497	27.107	53.551	1.00	54.26	B	O
ATOM	4053	N	LYS	B	72	73.157	27.694	52.136	1.00	54.12	B	N
ATOM	4054	CA	LYS	B	72	73.058	26.475	51.346	1.00	53.55	B	C
ATOM	4055	CB	LYS	B	72	73.388	26.766	49.873	1.00	55.94	B	C
ATOM	4056	CG	LYS	B	72	72.817	25.739	48.902	1.00	58.48	B	C
ATOM	4057	CD	LYS	B	72	72.969	26.166	47.439	1.00	60.29	B	C
ATOM	4058	CE	LYS	B	72	72.363	25.119	46.502	1.00	61.43	B	C
ATOM	4059	NZ	LYS	B	72	70.941	24.786	46.868	1.00	61.31	B	N
ATOM	4060	C	LYS	B	72	73.992	25.407	51.902	1.00	52.23	B	C
ATOM	4061	O	LYS	B	72	75.189	25.631	52.052	1.00	52.92	B	O
ATOM	4062	N	PRO	B	73	73.438	24.240	52.258	1.00	51.04	B	N
ATOM	4063	CD	PRO	B	73	71.997	23.959	52.411	1.00	51.22	B	C
ATOM	4064	CA	PRO	B	73	74.239	23.144	52.800	1.00	49.79	B	C
ATOM	4065	CB	PRO	B	73	73.225	22.367	53.629	1.00	49.81	B	C
ATOM	4066	CG	PRO	B	73	71.988	22.491	52.801	1.00	50.73	B	C
ATOM	4067	C	PRO	B	73	74.807	22.325	51.649	1.00	48.08	B	C
ATOM	4068	O	PRO	B	73	74.114	22.060	50.667	1.00	48.26	B	O
ATOM	4069	N	ILE	B	74	76.071	21.937	51.769	1.00	45.88	B	N
ATOM	4070	CA	ILE	B	74	76.738	21.153	50.735	1.00	44.14	B	C
ATOM	4071	CB	ILE	B	74	77.890	21.949	50.080	1.00	44.72	B	C
ATOM	4072	CG2	ILE	B	74	78.558	21.108	49.012	1.00	45.82	B	C
ATOM	4073	CG1	ILE	B	74	77.363	23.249	49.478	1.00	44.97	B	C
ATOM	4074	CD1	ILE	B	74	76.429	23.064	48.325	1.00	46.05	B	C
ATOM	4075	C	ILE	B	74	77.335	19.890	51.337	1.00	41.82	B	C
ATOM	4076	O	ILE	B	74	77.712	19.873	52.504	1.00	42.17	B	O
ATOM	4077	N	VAL	B	75	77.412	18.835	50.536	1.00	39.71	B	N
ATOM	4078	CA	VAL	B	75	77.998	17.579	50.982	1.00	38.49	B	C
ATOM	4079	CB	VAL	B	75	77.025	16.408	50.796	1.00	37.65	B	C
ATOM	4080	CG1	VAL	B	75	77.523	15.185	51.538	1.00	38.54	B	C
ATOM	4081	CG2	VAL	B	75	75.660	16.805	51.282	1.00	38.02	B	C
ATOM	4082	C	VAL	B	75	79.229	17.367	50.105	1.00	37.21	B	C
ATOM	4083	O	VAL	B	75	79.122	17.244	48.883	1.00	38.14	B	O
ATOM	4084	N	VAL	B	76	80.396	17.361	50.742	1.00	35.14	B	N
ATOM	4085	CA	VAL	B	76	81.673	17.203	50.052	1.00	34.54	B	C
ATOM	4086	CB	VAL	B	76	82.748	18.110	50.700	1.00	34.09	B	C
ATOM	4087	CG1	VAL	B	76	84.040	18.085	49.905	1.00	33.51	B	C
ATOM	4088	CG2	VAL	B	76	82.216	19.507	50.834	1.00	34.58	B	C
ATOM	4089	C	VAL	B	76	82.158	15.753	50.138	1.00	33.28	B	C
ATOM	4090	O	VAL	B	76	82.262	15.199	51.224	1.00	35.03	B	O
ATOM	4091	N	LEU	B	77	82.432	15.130	49.001	1.00	30.43	B	N
ATOM	4092	CA	LEU	B	77	82.933	13.770	49.013	1.00	28.19	B	C
ATOM	4093	CB	LEU	B	77	82.283	12.955	47.915	1.00	27.08	B	C
ATOM	4094	CG	LEU	B	77	80.774	13.112	47.901	1.00	27.37	B	C
ATOM	4095	CD1	LEU	B	77	80.204	12.284	46.776	1.00	28.13	B	C
ATOM	4096	CD2	LEU	B	77	80.174	12.694	49.228	1.00	28.04	B	C
ATOM	4097	C	LEU	B	77	84.425	13.894	48.774	1.00	28.28	B	C
ATOM	4098	O	LEU	B	77	84.847	14.443	47.759	1.00	28.32	B	O
ATOM	4099	N	HIS	B	78	85.233	13.382	49.692	1.00	30.59	B	N
ATOM	4100	CA	HIS	B	78	86.655	13.546	49.519	1.00	32.31	B	C
ATOM	4101	CB	HIS	B	78	87.293	13.987	50.818	1.00	33.23	B	C
ATOM	4102	CG	HIS	B	78	88.596	14.684	50.616	1.00	34.53	B	C
ATOM	4103	CD2	HIS	B	78	88.880	15.861	50.007	1.00	37.11	B	C
ATOM	4104	ND1	HIS	B	78	89.812	14.136	50.971	1.00	36.57	B	N
ATOM	4105	CE1	HIS	B	78	90.787	14.942	50.582	1.00	37.86	B	C
ATOM	4106	NE2	HIS	B	78	90.248	15.995	49.993	1.00	38.97	B	N
ATOM	4107	C	HIS	B	78	87.489	12.429	48.950	1.00	34.95	B	C
ATOM	4108	O	HIS	B	78	87.884	12.472	47.792	1.00	36.29	B	O
ATOM	4109	N	GLY	B	79	87.794	11.431	49.766	1.00	36.88	B	N
ATOM	4110	CA	GLY	B	79	88.636	10.342	49.291	1.00	38.70	B	C
ATOM	4111	C	GLY	B	79	88.080	9.580	48.106	1.00	39.18	B	C
ATOM	4112	O	GLY	B	79	86.864	9.451	47.969	1.00	40.93	B	O
ATOM	4113	N	TYR	B	80	88.961	9.072	47.249	1.00	39.24	B	N
ATOM	4114	CA	TYR	B	80	88.525	8.296	46.083	1.00	40.08	B	C
ATOM	4115	CB	TYR	B	80	89.697	7.500	45.479	1.00	41.68	B	C
ATOM	4116	CG	TYR	B	80	89.269	6.383	44.523	1.00	42.83	B	C
ATOM	4117	CD1	TYR	B	80	88.914	6.656	43.200	1.00	43.76	B	C
ATOM	4118	CE1	TYR	B	80	88.487	5.638	42.322	1.00	45.59	B	C
ATOM	4119	CD2	TYR	B	80	89.191	5.062	44.951	1.00	43.68	B	C
ATOM	4120	CE2	TYR	B	80	88.763	4.035	44.086	1.00	46.67	B	C
ATOM	4121	CZ	TYR	B	80	88.411	4.330	42.773	1.00	46.33	B	C

252/514

Figure 3

ATOM	4122	OH	TYR	B	80	87.966	3.324	41.930	1.00	47.99	B	O
ATOM	4123	C	TYR	B	80	87.428	7.300	46.449	1.00	39.86	B	C
ATOM	4124	O	TYR	B	80	86.378	7.268	45.816	1.00	38.64	B	O
ATOM	4125	N	GLU	B	81	87.705	6.477	47.461	1.00	42.87	B	N
ATOM	4126	CA	GLU	B	81	86.765	5.460	47.910	1.00	44.73	B	C
ATOM	4127	CB	GLU	B	81	87.183	4.906	49.279	1.00	48.22	B	C
ATOM	4128	CG	GLU	B	81	88.358	3.922	49.202	1.00	56.18	B	C
ATOM	4129	CD	GLU	B	81	88.092	2.726	48.272	1.00	60.53	B	C
ATOM	4130	OE1	GLU	B	81	89.089	2.091	47.819	1.00	61.57	B	O
ATOM	4131	OE2	GLU	B	81	86.895	2.422	47.997	1.00	62.72	B	O
ATOM	4132	C	GLU	B	81	85.342	5.990	47.965	1.00	44.43	B	C
ATOM	4133	O	GLU	B	81	84.422	5.403	47.389	1.00	44.37	B	O
ATOM	4134	N	ALA	B	82	85.163	7.105	48.663	1.00	44.32	B	N
ATOM	4135	CA	ALA	B	82	83.853	7.739	48.786	1.00	41.86	B	C
ATOM	4136	CB	ALA	B	82	83.941	8.891	49.751	1.00	41.85	B	C
ATOM	4137	C	ALA	B	82	83.387	8.239	47.429	1.00	42.27	B	C
ATOM	4138	O	ALA	B	82	82.250	8.003	47.030	1.00	43.09	B	O
ATOM	4139	N	VAL	B	83	84.277	8.929	46.718	1.00	41.38	B	N
ATOM	4140	CA	VAL	B	83	83.952	9.482	45.405	1.00	40.30	B	C
ATOM	4141	CB	VAL	B	83	85.189	10.052	44.722	1.00	39.40	B	C
ATOM	4142	CG1	VAL	B	83	84.778	10.829	43.498	1.00	38.81	B	C
ATOM	4143	CG2	VAL	B	83	85.968	10.901	45.684	1.00	39.37	B	C
ATOM	4144	C	VAL	B	83	83.405	8.408	44.498	1.00	41.16	B	C
ATOM	4145	O	VAL	B	83	82.388	8.584	43.821	1.00	40.06	B	O
ATOM	4146	N	LYS	B	84	84.108	7.285	44.488	1.00	43.70	B	N
ATOM	4147	CA	LYS	B	84	83.717	6.154	43.667	1.00	47.17	B	C
ATOM	4148	CB	LYS	B	84	84.722	5.017	43.819	1.00	49.31	B	C
ATOM	4149	CG	LYS	B	84	84.313	3.773	43.061	1.00	52.16	B	C
ATOM	4150	CD	LYS	B	84	85.132	2.563	43.449	1.00	54.63	B	C
ATOM	4151	CE	LYS	B	84	84.228	1.328	43.633	1.00	56.64	B	C
ATOM	4152	NZ	LYS	B	84	83.637	0.777	42.362	1.00	55.13	B	N
ATOM	4153	C	LYS	B	84	82.353	5.641	44.074	1.00	47.55	B	C
ATOM	4154	O	LYS	B	84	81.428	5.567	43.261	1.00	47.60	B	O
ATOM	4155	N	GLU	B	85	82.251	5.291	45.350	1.00	48.31	B	N
ATOM	4156	CA	GLU	B	85	81.021	4.748	45.900	1.00	49.59	B	C
ATOM	4157	CB	GLU	B	85	81.103	4.667	47.428	1.00	51.52	B	C
ATOM	4158	CG	GLU	B	85	80.209	3.594	48.033	1.00	54.37	B	C
ATOM	4159	CD	GLU	B	85	80.362	3.467	49.541	1.00	57.04	B	C
ATOM	4160	OE1	GLU	B	85	81.513	3.554	50.039	1.00	56.86	B	O
ATOM	4161	OE2	GLU	B	85	79.328	3.267	50.236	1.00	58.86	B	O
ATOM	4162	C	GLU	B	85	79.792	5.546	45.494	1.00	49.94	B	C
ATOM	4163	O	GLU	B	85	78.724	4.976	45.265	1.00	51.24	B	O
ATOM	4164	N	ALA	B	86	79.934	6.862	45.387	1.00	48.63	B	N
ATOM	4165	CA	ALA	B	86	78.793	7.688	45.016	1.00	46.77	B	C
ATOM	4166	CB	ALA	B	86	78.933	9.074	45.610	1.00	47.24	B	C
ATOM	4167	C	ALA	B	86	78.643	7.781	43.510	1.00	45.47	B	C
ATOM	4168	O	ALA	B	86	77.662	7.303	42.944	1.00	46.08	B	O
ATOM	4169	N	LEU	B	87	79.627	8.391	42.868	1.00	45.71	B	N
ATOM	4170	CA	LEU	B	87	79.577	8.575	41.437	1.00	46.41	B	C
ATOM	4171	CB	LEU	B	87	80.860	9.235	40.945	1.00	46.54	B	C
ATOM	4172	CG	LEU	B	87	80.765	10.741	40.671	1.00	46.20	B	C
ATOM	4173	CD1	LEU	B	87	80.514	11.500	41.951	1.00	45.94	B	C
ATOM	4174	CD2	LEU	B	87	82.051	11.205	40.024	1.00	46.40	B	C
ATOM	4175	C	LEU	B	87	79.298	7.318	40.625	1.00	47.16	B	C
ATOM	4176	O	LEU	B	87	78.610	7.387	39.606	1.00	47.96	B	O
ATOM	4177	N	ILE	B	88	79.807	6.166	41.054	1.00	48.10	B	N
ATOM	4178	CA	ILE	B	88	79.555	4.941	40.292	1.00	48.73	B	C
ATOM	4179	CB	ILE	B	88	80.852	4.163	40.005	1.00	47.93	B	C
ATOM	4180	CG2	ILE	B	88	80.523	2.869	39.281	1.00	48.12	B	C
ATOM	4181	CG1	ILE	B	88	81.780	4.991	39.117	1.00	47.53	B	C
ATOM	4182	CD1	ILE	B	88	83.093	4.294	38.819	1.00	47.36	B	C
ATOM	4183	C	ILE	B	88	78.542	3.984	40.922	1.00	50.13	B	C
ATOM	4184	O	ILE	B	88	77.474	3.757	40.356	1.00	50.03	B	O
ATOM	4185	N	ASP	B	89	78.876	3.414	42.076	1.00	51.78	B	N
ATOM	4186	CA	ASP	B	89	77.974	2.479	42.742	1.00	54.23	B	C
ATOM	4187	CB	ASP	B	89	78.540	2.069	44.117	1.00	55.93	B	C
ATOM	4188	CG	ASP	B	89	79.932	1.390	44.029	1.00	58.78	B	C
ATOM	4189	OD1	ASP	B	89	80.411	0.869	45.077	1.00	60.26	B	O
ATOM	4190	OD2	ASP	B	89	80.551	1.379	42.934	1.00	58.09	B	O
ATOM	4191	C	ASP	B	89	76.537	3.036	42.881	1.00	55.37	B	C
ATOM	4192	O	ASP	B	89	75.566	2.277	42.815	1.00	56.38	B	O
ATOM	4193	N	LEU	B	90	76.405	4.345	43.084	1.00	56.13	B	N
ATOM	4194	CA	LEU	B	90	75.096	4.996	43.195	1.00	56.25	B	C
ATOM	4195	CB	LEU	B	90	74.966	5.714	44.525	1.00	57.00	B	C
ATOM	4196	CG	LEU	B	90	74.836	4.834	45.759	1.00	57.71	B	C

Figure 3

ATOM	4197	CD1	LEU	B	90	73.652	3.920	45.543	1.00	59.22	B	C
ATOM	4198	CD2	LEU	B	90	76.102	4.037	45.993	1.00	57.89	B	C
ATOM	4199	C	LEU	B	90	74.980	6.022	42.086	1.00	57.31	B	C
ATOM	4200	O	LEU	B	90	74.418	7.106	42.270	1.00	57.43	B	O
ATOM	4201	N	GLY	B	91	75.528	5.670	40.932	1.00	58.26	B	N
ATOM	4202	CA	GLY	B	91	75.517	6.564	39.793	1.00	58.98	B	C
ATOM	4203	C	GLY	B	91	74.237	7.334	39.569	1.00	58.93	B	C
ATOM	4204	O	GLY	B	91	74.249	8.563	39.564	1.00	59.48	B	O
ATOM	4205	N	GLU	B	92	73.131	6.626	39.382	1.00	58.65	B	N
ATOM	4206	CA	GLU	B	92	71.873	7.305	39.129	1.00	59.42	B	C
ATOM	4207	CB	GLU	B	92	70.723	6.306	38.971	1.00	61.87	B	C
ATOM	4208	CG	GLU	B	92	70.218	6.149	37.525	1.00	64.82	B	C
ATOM	4209	CD	GLU	B	92	69.688	7.458	36.928	1.00	67.38	B	C
ATOM	4210	OE1	GLU	B	92	68.966	8.208	37.636	1.00	66.53	B	O
ATOM	4211	OE2	GLU	B	92	69.980	7.733	35.735	1.00	69.60	B	O
ATOM	4212	C	GLU	B	92	71.549	8.295	40.230	1.00	58.41	B	C
ATOM	4213	O	GLU	B	92	71.179	9.436	39.958	1.00	58.05	B	O
ATOM	4214	N	GLU	B	93	71.709	7.865	41.474	1.00	56.02	B	N
ATOM	4215	CA	GLU	B	93	71.413	8.722	42.613	1.00	55.93	B	C
ATOM	4216	CB	GLU	B	93	71.642	7.938	43.916	1.00	57.74	B	C
ATOM	4217	CG	GLU	B	93	70.648	6.778	44.195	1.00	59.51	B	C
ATOM	4218	CD	GLU	B	93	70.804	5.563	43.261	1.00	62.22	B	C
ATOM	4219	OE1	GLU	B	93	71.934	5.013	43.129	1.00	63.66	B	O
ATOM	4220	OE2	GLU	B	93	69.783	5.130	42.677	1.00	63.26	B	O
ATOM	4221	C	GLU	B	93	72.228	10.029	42.634	1.00	54.09	B	C
ATOM	4222	O	GLU	B	93	71.861	10.988	43.317	1.00	54.35	B	O
ATOM	4223	N	PHE	B	94	73.321	10.080	41.883	1.00	52.25	B	N
ATOM	4224	CA	PHE	B	94	74.166	11.276	41.867	1.00	50.57	B	C
ATOM	4225	CB	PHE	B	94	75.549	10.918	42.409	1.00	49.12	B	C
ATOM	4226	CG	PHE	B	94	75.588	10.719	43.909	1.00	46.48	B	C
ATOM	4227	CD1	PHE	B	94	75.801	11.797	44.762	1.00	45.81	B	C
ATOM	4228	CD2	PHE	B	94	75.431	9.454	44.467	1.00	47.05	B	C
ATOM	4229	CE1	PHE	B	94	75.864	11.623	46.144	1.00	45.91	B	C
ATOM	4230	CE2	PHE	B	94	75.490	9.269	45.850	1.00	44.45	B	C
ATOM	4231	CZ	PHE	B	94	75.708	10.355	46.687	1.00	44.81	B	C
ATOM	4232	C	PHE	B	94	74.294	11.891	40.464	1.00	50.93	B	C
ATOM	4233	O	PHE	B	94	75.298	12.551	40.140	1.00	51.93	B	O
ATOM	4234	N	SER	B	95	73.274	11.680	39.634	1.00	48.90	B	N
ATOM	4235	CA	SER	B	95	73.287	12.207	38.278	1.00	46.53	B	C
ATOM	4236	CB	SER	B	95	72.407	11.336	37.345	1.00	48.35	B	C
ATOM	4237	OG	SER	B	95	71.005	11.480	37.567	1.00	49.63	B	O
ATOM	4238	C	SER	B	95	72.855	13.678	38.227	1.00	44.26	B	C
ATOM	4239	O	SER	B	95	73.199	14.402	37.289	1.00	43.40	B	O
ATOM	4240	N	GLY	B	96	72.126	14.118	39.249	1.00	43.04	B	N
ATOM	4241	CA	GLY	B	96	71.664	15.492	39.296	1.00	41.72	B	C
ATOM	4242	C	GLY	B	96	72.738	16.568	39.245	1.00	40.99	B	C
ATOM	4243	O	GLY	B	96	73.794	16.444	39.871	1.00	41.17	B	O
ATOM	4244	N	ARG	B	97	72.461	17.631	38.489	1.00	40.18	B	N
ATOM	4245	CA	ARG	B	97	73.395	18.743	38.352	1.00	38.80	B	C
ATOM	4246	CB	ARG	B	97	73.291	19.380	36.970	1.00	37.71	B	C
ATOM	4247	CG	ARG	B	97	74.110	20.641	36.846	1.00	34.48	B	C
ATOM	4248	CD	ARG	B	97	75.569	20.351	37.051	1.00	33.26	B	C
ATOM	4249	NE	ARG	B	97	76.114	19.563	35.937	1.00	31.66	B	N
ATOM	4250	CZ	ARG	B	97	77.216	18.821	36.018	1.00	28.55	B	C
ATOM	4251	NH1	ARG	B	97	77.641	18.148	34.976	1.00	26.42	B	N
ATOM	4252	NH2	ARG	B	97	77.891	18.738	37.149	1.00	29.19	B	N
ATOM	4253	C	ARG	B	97	73.142	19.816	39.392	1.00	40.80	B	C
ATOM	4254	O	ARG	B	97	72.101	20.464	39.390	1.00	41.00	B	O
ATOM	4255	N	GLY	B	98	74.113	20.018	40.270	1.00	43.10	B	N
ATOM	4256	CA	GLY	B	98	73.968	21.028	41.303	1.00	45.40	B	C
ATOM	4257	C	GLY	B	98	74.051	22.454	40.787	1.00	47.67	B	C
ATOM	4258	O	GLY	B	98	75.056	22.859	40.190	1.00	47.93	B	O
ATOM	4259	N	ILE	B	99	73.002	23.233	41.023	1.00	50.12	B	N
ATOM	4260	CA	ILE	B	99	73.030	24.609	40.566	1.00	51.67	B	C
ATOM	4261	CB	ILE	B	99	71.719	25.018	39.912	1.00	52.83	B	C
ATOM	4262	CG2	ILE	B	99	71.775	26.517	39.555	1.00	53.38	B	C
ATOM	4263	CG1	ILE	B	99	71.463	24.093	38.709	1.00	54.47	B	C
ATOM	4264	CD1	ILE	B	99	70.223	24.397	37.894	1.00	55.15	B	C
ATOM	4265	C	ILE	B	99	73.315	25.577	41.678	1.00	52.11	B	C
ATOM	4266	O	ILE	B	99	72.708	25.510	42.747	1.00	52.60	B	O
ATOM	4267	N	PHE	B	100	74.276	26.458	41.428	1.00	53.99	B	N
ATOM	4268	CA	PHE	B	100	74.639	27.485	42.398	1.00	54.57	B	C
ATOM	4269	CB	PHE	B	100	76.162	27.695	42.446	1.00	54.74	B	C
ATOM	4270	CG	PHE	B	100	76.861	26.955	43.573	1.00	53.60	B	C
ATOM	4271	CD1	PHE	B	100	78.250	26.912	43.627	1.00	54.03	B	C

Figure 3

ATOM	4272	CD2	PHE	B	100	76.136	26.300	44.567	1.00	54.36	B	C
ATOM	4273	CE1	PHE	B	100	78.909	26.227	44.650	1.00	54.83	B	C
ATOM	4274	CE2	PHE	B	100	76.787	25.611	45.597	1.00	53.34	B	C
ATOM	4275	CZ	PHE	B	100	78.173	25.573	45.636	1.00	53.82	B	C
ATOM	4276	C	PHE	B	100	73.943	28.764	41.940	1.00	56.49	B	C
ATOM	4277	O	PHE	B	100	73.695	28.960	40.741	1.00	57.42	B	O
ATOM	4278	N	PRO	B	101	73.605	29.643	42.890	1.00	57.01	B	N
ATOM	4279	CD	PRO	B	101	73.897	29.492	44.327	1.00	57.27	B	C
ATOM	4280	CA	PRO	B	101	72.933	30.914	42.631	1.00	55.78	B	C
ATOM	4281	CB	PRO	B	101	73.194	31.684	43.911	1.00	56.34	B	C
ATOM	4282	CG	PRO	B	101	73.090	30.603	44.936	1.00	56.97	B	C
ATOM	4283	C	PRO	B	101	73.400	31.676	41.391	1.00	55.34	B	C
ATOM	4284	O	PRO	B	101	72.645	31.819	40.430	1.00	56.59	B	O
ATOM	4285	N	LEU	B	102	74.640	32.161	41.416	1.00	53.85	B	N
ATOM	4286	CA	LEU	B	102	75.180	32.942	40.305	1.00	51.55	B	C
ATOM	4287	CB	LEU	B	102	76.700	33.074	40.418	1.00	49.92	B	C
ATOM	4288	CG	LEU	B	102	77.379	33.966	39.360	1.00	48.55	B	C
ATOM	4289	CD1	LEU	B	102	77.610	33.186	38.096	1.00	49.07	B	C
ATOM	4290	CD2	LEU	B	102	76.542	35.203	39.095	1.00	47.71	B	C
ATOM	4291	C	LEU	B	102	74.822	32.364	38.952	1.00	52.45	B	C
ATOM	4292	O	LEU	B	102	74.499	33.099	38.016	1.00	51.65	B	O
ATOM	4293	N	ALA	B	103	74.885	31.043	38.850	1.00	53.76	B	N
ATOM	4294	CA	ALA	B	103	74.560	30.381	37.603	1.00	56.20	B	C
ATOM	4295	CB	ALA	B	103	75.002	28.933	37.647	1.00	56.29	B	C
ATOM	4296	C	ALA	B	103	73.063	30.468	37.383	1.00	57.97	B	C
ATOM	4297	O	ALA	B	103	72.600	30.934	36.336	1.00	58.83	B	O
ATOM	4298	N	GLU	B	104	72.296	30.043	38.379	1.00	60.01	B	N
ATOM	4299	CA	GLU	B	104	70.846	30.072	38.246	1.00	62.56	B	C
ATOM	4300	CB	GLU	B	104	70.175	29.893	39.601	1.00	63.71	B	C
ATOM	4301	CG	GLU	B	104	68.696	29.611	39.449	1.00	67.55	B	C
ATOM	4302	CD	GLU	B	104	68.145	28.773	40.583	1.00	69.92	B	C
ATOM	4303	OE1	GLU	B	104	68.112	29.282	41.731	1.00	70.38	B	O
ATOM	4304	OE2	GLU	B	104	67.765	27.593	40.331	1.00	71.95	B	O
ATOM	4305	C	GLU	B	104	70.324	31.347	37.588	1.00	63.49	B	C
ATOM	4306	O	GLU	B	104	69.460	31.292	36.699	1.00	63.55	B	O
ATOM	4307	N	ARG	B	105	70.873	32.484	38.015	1.00	64.98	B	N
ATOM	4308	CA	ARG	B	105	70.482	33.801	37.499	1.00	65.81	B	C
ATOM	4309	CB	ARG	B	105	70.804	34.889	38.542	1.00	68.02	B	C
ATOM	4310	CG	ARG	B	105	69.886	34.905	39.786	1.00	71.57	B	C
ATOM	4311	CD	ARG	B	105	68.412	35.052	39.385	1.00	75.10	B	C
ATOM	4312	NE	ARG	B	105	68.158	36.280	38.629	1.00	77.67	B	N
ATOM	4313	CZ	ARG	B	105	68.118	37.497	39.164	1.00	78.39	B	C
ATOM	4314	NH1	ARG	B	105	67.888	38.559	38.390	1.00	78.33	B	N
ATOM	4315	NH2	ARG	B	105	68.296	37.651	40.472	1.00	78.51	B	N
ATOM	4316	C	ARG	B	105	71.118	34.181	36.151	1.00	64.92	B	C
ATOM	4317	O	ARG	B	105	70.612	35.066	35.447	1.00	64.40	B	O
ATOM	4318	N	ALA	B	106	72.219	33.523	35.791	1.00	64.01	B	N
ATOM	4319	CA	ALA	B	106	72.891	33.827	34.532	1.00	63.64	B	C
ATOM	4320	CB	ALA	B	106	74.406	33.877	34.746	1.00	61.31	B	C
ATOM	4321	C	ALA	B	106	72.548	32.859	33.399	1.00	64.55	B	C
ATOM	4322	O	ALA	B	106	73.022	33.027	32.272	1.00	64.92	B	O
ATOM	4323	N	ASN	B	107	71.710	31.865	33.681	1.00	65.27	B	N
ATOM	4324	CA	ASN	B	107	71.332	30.882	32.659	1.00	66.86	B	C
ATOM	4325	CB	ASN	B	107	71.779	29.473	33.099	1.00	66.71	B	C
ATOM	4326	CG	ASN	B	107	73.285	29.253	32.939	1.00	67.41	B	C
ATOM	4327	OD1	ASN	B	107	74.096	29.852	33.652	1.00	68.42	B	O
ATOM	4328	ND2	ASN	B	107	73.661	28.388	32.003	1.00	66.90	B	N
ATOM	4329	C	ASN	B	107	69.844	30.858	32.255	1.00	67.32	B	C
ATOM	4330	O	ASN	B	107	69.006	30.211	32.904	1.00	68.34	B	O
ATOM	4331	N	ARG	B	108	69.514	31.568	31.179	1.00	66.70	B	N
ATOM	4332	CA	ARG	B	108	68.135	31.585	30.679	1.00	66.66	B	C
ATOM	4333	CB	ARG	B	108	67.849	32.881	29.885	1.00	67.92	B	C
ATOM	4334	CG	ARG	B	108	66.788	33.815	30.504	1.00	68.68	B	C
ATOM	4335	CD	ARG	B	108	67.121	34.169	31.958	1.00	70.34	B	C
ATOM	4336	NE	ARG	B	108	66.663	35.497	32.353	1.00	71.08	B	N
ATOM	4337	CZ	ARG	B	108	66.954	36.618	31.696	1.00	72.12	B	C
ATOM	4338	NH1	ARG	B	108	67.699	36.571	30.596	1.00	71.66	B	N
ATOM	4339	NH2	ARG	B	108	66.524	37.794	32.149	1.00	73.33	B	N
ATOM	4340	C	ARG	B	108	68.031	30.380	29.752	1.00	65.67	B	C
ATOM	4341	O	ARG	B	108	68.439	30.430	28.591	1.00	66.62	B	O
ATOM	4342	N	GLY	B	109	67.510	29.286	30.275	1.00	64.18	B	N
ATOM	4343	CA	GLY	B	109	67.396	28.109	29.445	1.00	62.65	B	C
ATOM	4344	C	GLY	B	109	68.362	27.008	29.821	1.00	61.70	B	C
ATOM	4345	O	GLY	B	109	69.543	27.233	30.103	1.00	60.91	B	O
ATOM	4346	N	PHE	B	110	67.836	25.794	29.807	1.00	61.91	B	N

255/514

Figure 3

ATOM	4347	CA	PHE	B	110	68.603	24.618	30.157	1.00	61.62	B	C
ATOM	4348	CB	PHE	B	110	67.823	23.824	31.195	1.00	63.59	B	C
ATOM	4349	CG	PHE	B	110	67.413	24.656	32.368	1.00	67.69	B	C
ATOM	4350	CD1	PHE	B	110	68.373	25.133	33.258	1.00	69.31	B	C
ATOM	4351	CD2	PHE	B	110	66.074	25.011	32.561	1.00	69.09	B	C
ATOM	4352	CE1	PHE	B	110	68.017	25.957	34.331	1.00	71.55	B	C
ATOM	4353	CE2	PHE	B	110	65.690	25.837	33.629	1.00	71.42	B	C
ATOM	4354	CZ	PHE	B	110	66.664	26.314	34.521	1.00	72.54	B	C
ATOM	4355	C	PHE	B	110	68.919	23.781	28.928	1.00	60.20	B	C
ATOM	4356	O	PHE	B	110	68.025	23.295	28.225	1.00	59.49	B	O
ATOM	4357	N	GLY	B	111	70.216	23.652	28.668	1.00	59.00	B	N
ATOM	4358	CA	GLY	B	111	70.689	22.872	27.542	1.00	55.64	B	C
ATOM	4359	C	GLY	B	111	71.153	21.514	28.024	1.00	53.15	B	C
ATOM	4360	O	GLY	B	111	70.341	20.654	28.348	1.00	53.63	B	O
ATOM	4361	N	ILE	B	112	72.459	21.320	28.112	1.00	50.01	B	N
ATOM	4362	CA	ILE	B	112	72.968	20.028	28.542	1.00	46.17	B	C
ATOM	4363	CB	ILE	B	112	73.807	19.392	27.418	1.00	45.10	B	C
ATOM	4364	CG2	ILE	B	112	74.747	20.414	26.863	1.00	47.06	B	C
ATOM	4365	CG1	ILE	B	112	74.606	18.201	27.926	1.00	43.92	B	C
ATOM	4366	CD1	ILE	B	112	75.404	17.517	26.814	1.00	42.03	B	C
ATOM	4367	C	ILE	B	112	73.781	20.103	29.822	1.00	45.16	B	C
ATOM	4368	O	ILE	B	112	73.742	19.178	30.626	1.00	46.54	B	O
ATOM	4369	N	VAL	B	113	74.497	21.207	30.027	1.00	43.45	B	N
ATOM	4370	CA	VAL	B	113	75.330	21.353	31.222	1.00	40.88	B	C
ATOM	4371	CB	VAL	B	113	76.312	22.528	31.097	1.00	40.29	B	C
ATOM	4372	CG1	VAL	B	113	77.093	22.692	32.385	1.00	39.88	B	C
ATOM	4373	CG2	VAL	B	113	77.256	22.295	29.947	1.00	40.39	B	C
ATOM	4374	C	VAL	B	113	74.536	21.562	32.493	1.00	40.87	B	C
ATOM	4375	O	VAL	B	113	74.886	21.028	33.546	1.00	40.88	B	O
ATOM	4376	N	PHE	B	114	73.474	22.346	32.404	1.00	41.12	B	N
ATOM	4377	CA	PHE	B	114	72.683	22.624	33.583	1.00	41.15	B	C
ATOM	4378	CB	PHE	B	114	72.618	24.124	33.805	1.00	40.43	B	C
ATOM	4379	CG	PHE	B	114	73.937	24.728	34.130	1.00	38.73	B	C
ATOM	4380	CD1	PHE	B	114	74.579	25.574	33.232	1.00	39.54	B	C
ATOM	4381	CD2	PHE	B	114	74.547	24.445	35.340	1.00	39.98	B	C
ATOM	4382	CE1	PHE	B	114	75.818	26.134	33.544	1.00	40.50	B	C
ATOM	4383	CE2	PHE	B	114	75.779	24.995	35.666	1.00	41.24	B	C
ATOM	4384	CZ	PHE	B	114	76.418	25.843	34.768	1.00	41.36	B	C
ATOM	4385	C	PHE	B	114	71.298	22.056	33.496	1.00	42.16	B	C
ATOM	4386	O	PHE	B	114	70.347	22.619	34.038	1.00	43.27	B	O
ATOM	4387	N	SER	B	115	71.172	20.925	32.822	1.00	43.94	B	N
ATOM	4388	CA	SER	B	115	69.860	20.312	32.670	1.00	44.60	B	C
ATOM	4389	CB	SER	B	115	69.751	19.676	31.289	1.00	45.90	B	C
ATOM	4390	OG	SER	B	115	68.530	20.053	30.661	1.00	47.95	B	O
ATOM	4391	C	SER	B	115	69.608	19.276	33.740	1.00	44.92	B	C
ATOM	4392	O	SER	B	115	70.329	19.191	34.724	1.00	45.47	B	O
ATOM	4393	N	ASN	B	116	68.558	18.499	33.562	1.00	46.66	B	N
ATOM	4394	CA	ASN	B	116	68.257	17.468	34.528	1.00	48.98	B	C
ATOM	4395	CB	ASN	B	116	68.021	18.078	35.918	1.00	48.61	B	C
ATOM	4396	CG	ASN	B	116	68.751	17.320	37.014	1.00	49.67	B	C
ATOM	4397	OD1	ASN	B	116	68.774	16.080	37.015	1.00	50.36	B	O
ATOM	4398	ND2	ASN	B	116	69.338	18.051	37.960	1.00	49.37	B	N
ATOM	4399	C	ASN	B	116	67.049	16.640	34.101	1.00	50.94	B	C
ATOM	4400	O	ASN	B	116	66.238	17.071	33.269	1.00	51.74	B	O
ATOM	4401	N	GLY	B	117	66.957	15.436	34.668	1.00	52.04	B	N
ATOM	4402	CA	GLY	B	117	65.866	14.527	34.364	1.00	52.95	B	C
ATOM	4403	C	GLY	B	117	65.650	14.308	32.877	1.00	53.98	B	C
ATOM	4404	O	GLY	B	117	66.544	14.543	32.065	1.00	53.90	B	O
ATOM	4405	N	LYS	B	118	64.456	13.852	32.521	1.00	55.26	B	N
ATOM	4406	CA	LYS	B	118	64.124	13.605	31.127	1.00	56.95	B	C
ATOM	4407	CB	LYS	B	118	62.599	13.649	30.909	1.00	59.52	B	C
ATOM	4408	CG	LYS	B	118	61.796	14.532	31.909	1.00	63.68	B	C
ATOM	4409	CD	LYS	B	118	62.215	16.021	31.932	1.00	62.93	B	C
ATOM	4410	CE	LYS	B	118	61.172	16.878	32.644	1.00	61.69	B	C
ATOM	4411	NZ	LYS	B	118	60.734	16.292	33.949	1.00	60.34	B	N
ATOM	4412	C	LYS	B	118	64.805	14.556	30.147	1.00	55.61	B	C
ATOM	4413	O	LYS	B	118	65.280	14.113	29.105	1.00	56.68	B	O
ATOM	4414	N	LYS	B	119	64.876	15.850	30.451	1.00	54.04	B	N
ATOM	4415	CA	LYS	B	119	65.517	16.750	29.493	1.00	53.62	B	C
ATOM	4416	CB	LYS	B	119	65.421	18.215	29.931	1.00	52.23	B	C
ATOM	4417	CG	LYS	B	119	65.649	19.216	28.792	1.00	51.72	B	C
ATOM	4418	CD	LYS	B	119	65.515	20.649	29.302	1.00	53.72	B	C
ATOM	4419	CE	LYS	B	119	65.217	21.661	28.195	1.00	54.82	B	C
ATOM	4420	NZ	LYS	B	119	63.801	21.603	27.714	1.00	56.25	B	N
ATOM	4421	C	LYS	B	119	66.977	16.363	29.324	1.00	53.84	B	C

Figure 3

ATOM	4422	O	LYS	B	119	67.425	16.064	28.218	1.00	53.58	B	O
ATOM	4423	N	TRP	B	120	67.715	16.358	30.429	1.00	53.05	B	N
ATOM	4424	CA	TRP	B	120	69.129	16.007	30.394	1.00	52.26	B	C
ATOM	4425	CB	TRP	B	120	69.715	16.073	31.804	1.00	50.59	B	C
ATOM	4426	CG	TRP	B	120	71.079	15.484	31.925	1.00	47.26	B	C
ATOM	4427	CD2	TRP	B	120	71.403	14.215	32.488	1.00	45.64	B	C
ATOM	4428	CE2	TRP	B	120	72.799	14.050	32.379	1.00	45.36	B	C
ATOM	4429	CE3	TRP	B	120	70.650	13.201	33.091	1.00	45.88	B	C
ATOM	4430	CD1	TRP	B	120	72.254	16.025	31.497	1.00	47.13	B	C
ATOM	4431	NE1	TRP	B	120	73.296	15.171	31.764	1.00	45.94	B	N
ATOM	4432	CZ2	TRP	B	120	73.457	12.911	32.829	1.00	45.91	B	C
ATOM	4433	CZ3	TRP	B	120	71.298	12.070	33.540	1.00	46.70	B	C
ATOM	4434	CH2	TRP	B	120	72.695	11.933	33.412	1.00	47.20	B	C
ATOM	4435	C	TRP	B	120	69.348	14.616	29.796	1.00	53.49	B	C
ATOM	4436	O	TRP	B	120	70.127	14.459	28.857	1.00	53.53	B	O
ATOM	4437	N	LYS	B	121	68.656	13.616	30.335	1.00	54.71	B	N
ATOM	4438	CA	LYS	B	121	68.794	12.253	29.847	1.00	55.38	B	C
ATOM	4439	CB	LYS	B	121	67.720	11.343	30.460	1.00	57.03	B	C
ATOM	4440	CG	LYS	B	121	67.867	11.173	31.980	1.00	61.34	B	C
ATOM	4441	CD	LYS	B	121	66.940	10.098	32.567	1.00	63.58	B	C
ATOM	4442	CE	LYS	B	121	67.557	8.691	32.538	1.00	65.58	B	C
ATOM	4443	NZ	LYS	B	121	67.910	8.195	31.172	1.00	67.13	B	N
ATOM	4444	C	LYS	B	121	68.743	12.188	28.330	1.00	55.28	B	C
ATOM	4445	O	LYS	B	121	69.654	11.646	27.690	1.00	56.27	B	O
ATOM	4446	N	GLU	B	122	67.703	12.758	27.733	1.00	55.99	B	N
ATOM	4447	CA	GLU	B	122	67.583	12.721	26.275	1.00	54.95	B	C
ATOM	4448	CB	GLU	B	122	66.154	13.081	25.854	1.00	57.42	B	C
ATOM	4449	CG	GLU	B	122	65.086	12.133	26.395	1.00	60.84	B	C
ATOM	4450	CD	GLU	B	122	63.701	12.407	25.821	1.00	63.26	B	C
ATOM	4451	OE1	GLU	B	122	62.713	11.863	26.369	1.00	64.52	B	O
ATOM	4452	OE2	GLU	B	122	63.596	13.156	24.818	1.00	64.00	B	O
ATOM	4453	C	GLU	B	122	68.580	13.591	25.515	1.00	52.63	B	C
ATOM	4454	O	GLU	B	122	69.136	13.138	24.521	1.00	53.39	B	O
ATOM	4455	N	ILE	B	123	68.816	14.824	25.966	1.00	49.73	B	N
ATOM	4456	CA	ILE	B	123	69.749	15.689	25.251	1.00	47.08	B	C
ATOM	4457	CB	ILE	B	123	69.725	17.138	25.747	1.00	45.94	B	C
ATOM	4458	CG2	ILE	B	123	70.615	17.995	24.863	1.00	43.42	B	C
ATOM	4459	CG1	ILE	B	123	68.313	17.700	25.685	1.00	47.34	B	C
ATOM	4460	CD1	ILE	B	123	68.171	18.996	26.453	1.00	49.76	B	C
ATOM	4461	C	ILE	B	123	71.181	15.214	25.353	1.00	46.72	B	C
ATOM	4462	O	ILE	B	123	71.990	15.508	24.478	1.00	46.16	B	O
ATOM	4463	N	ARG	B	124	71.509	14.502	26.422	1.00	46.40	B	N
ATOM	4464	CA	ARG	B	124	72.874	14.006	26.569	1.00	47.29	B	C
ATOM	4465	CB	ARG	B	124	73.162	13.602	28.011	1.00	46.85	B	C
ATOM	4466	CG	ARG	B	124	74.473	12.836	28.163	1.00	46.37	B	C
ATOM	4467	CD	ARG	B	124	74.563	12.139	29.522	1.00	46.85	B	C
ATOM	4468	NE	ARG	B	124	75.724	11.243	29.627	1.00	45.97	B	N
ATOM	4469	CZ	ARG	B	124	76.978	11.642	29.825	1.00	45.94	B	C
ATOM	4470	NH1	ARG	B	124	77.266	12.934	29.946	1.00	43.39	B	N
ATOM	4471	NH2	ARG	B	124	77.947	10.743	29.904	1.00	45.84	B	N
ATOM	4472	C	ARG	B	124	73.047	12.788	25.684	1.00	49.51	B	C
ATOM	4473	O	ARG	B	124	73.996	12.704	24.903	1.00	49.15	B	O
ATOM	4474	N	ARG	B	125	72.111	11.846	25.819	1.00	51.76	B	N
ATOM	4475	CA	ARG	B	125	72.142	10.612	25.044	1.00	53.00	B	C
ATOM	4476	CB	ARG	B	125	70.833	9.823	25.200	1.00	56.37	B	C
ATOM	4477	CG	ARG	B	125	70.885	8.451	24.533	1.00	61.99	B	C
ATOM	4478	CD	ARG	B	125	69.757	7.513	24.991	1.00	68.57	B	C
ATOM	4479	NE	ARG	B	125	69.952	6.150	24.475	1.00	76.25	B	N
ATOM	4480	CZ	ARG	B	125	69.185	5.101	24.782	1.00	79.27	B	C
ATOM	4481	NH1	ARG	B	125	68.156	5.254	25.609	1.00	80.94	B	N
ATOM	4482	NH2	ARG	B	125	69.449	3.901	24.263	1.00	80.01	B	N
ATOM	4483	C	ARG	B	125	72.382	10.918	23.578	1.00	51.96	B	C
ATOM	4484	O	ARG	B	125	73.269	10.335	22.948	1.00	52.91	B	O
ATOM	4485	N	PHE	B	126	71.591	11.836	23.034	1.00	50.69	B	N
ATOM	4486	CA	PHE	B	126	71.729	12.214	21.633	1.00	48.94	B	C
ATOM	4487	CB	PHE	B	126	70.598	13.174	21.218	1.00	47.35	B	C
ATOM	4488	CG	PHE	B	126	70.868	13.918	19.934	1.00	45.70	B	C
ATOM	4489	CD1	PHE	B	126	71.470	15.174	19.956	1.00	47.01	B	C
ATOM	4490	CD2	PHE	B	126	70.536	13.358	18.701	1.00	47.03	B	C
ATOM	4491	CE1	PHE	B	126	71.738	15.868	18.772	1.00	47.02	B	C
ATOM	4492	CE2	PHE	B	126	70.799	14.042	17.506	1.00	47.24	B	C
ATOM	4493	CZ	PHE	B	126	71.401	15.302	17.541	1.00	46.60	B	C
ATOM	4494	C	PHE	B	126	73.093	12.845	21.361	1.00	48.53	B	C
ATOM	4495	O	PHE	B	126	73.786	12.446	20.435	1.00	49.24	B	O
ATOM	4496	N	SER	B	127	73.494	13.804	22.182	1.00	47.50	B	N

Figure 3

ATOM	4497	CA	SER	B	127	74.767	14.470	21.964	1.00	47.21	B	C
ATOM	4498	CB	SER	B	127	74.956	15.572	22.990	1.00	46.53	B	C
ATOM	4499	OG	SER	B	127	73.842	16.434	22.949	1.00	45.60	B	O
ATOM	4500	C	SER	B	127	75.954	13.528	22.002	1.00	47.64	B	C
ATOM	4501	O	SER	B	127	76.900	13.669	21.217	1.00	47.68	B	O
ATOM	4502	N	LEU	B	128	75.919	12.578	22.924	1.00	48.76	B	N
ATOM	4503	CA	LEU	B	128	77.010	11.627	23.027	1.00	50.75	B	C
ATOM	4504	CB	LEU	B	128	76.807	10.700	24.218	1.00	50.04	B	C
ATOM	4505	CG	LEU	B	128	77.592	11.083	25.465	1.00	49.89	B	C
ATOM	4506	CD1	LEU	B	128	77.291	10.067	26.554	1.00	48.85	B	C
ATOM	4507	CD2	LEU	B	128	79.094	11.116	25.139	1.00	48.87	B	C
ATOM	4508	C	LEU	B	128	77.080	10.806	21.757	1.00	52.65	B	C
ATOM	4509	O	LEU	B	128	78.154	10.358	21.345	1.00	53.44	B	O
ATOM	4510	N	MET	B	129	75.923	10.619	21.138	1.00	54.33	B	N
ATOM	4511	CA	MET	B	129	75.818	9.845	19.912	1.00	56.49	B	C
ATOM	4512	CB	MET	B	129	74.347	9.694	19.513	1.00	60.29	B	C
ATOM	4513	CG	MET	B	129	74.066	8.516	18.604	1.00	66.24	B	C
ATOM	4514	SD	MET	B	129	73.659	7.043	19.588	1.00	73.85	B	S
ATOM	4515	CE	MET	B	129	71.835	7.113	19.564	1.00	72.71	B	C
ATOM	4516	C	MET	B	129	76.553	10.564	18.794	1.00	55.27	B	C
ATOM	4517	O	MET	B	129	77.545	10.070	18.251	1.00	55.37	B	O
ATOM	4518	N	THR	B	130	76.038	11.742	18.467	1.00	53.15	B	N
ATOM	4519	CA	THR	B	130	76.572	12.573	17.406	1.00	52.60	B	C
ATOM	4520	CB	THR	B	130	75.743	13.848	17.280	1.00	53.06	B	C
ATOM	4521	OG1	THR	B	130	75.997	14.689	18.408	1.00	55.21	B	O
ATOM	4522	CG2	THR	B	130	74.268	13.505	17.254	1.00	54.34	B	C
ATOM	4523	C	THR	B	130	78.025	12.954	17.607	1.00	51.51	B	C
ATOM	4524	O	THR	B	130	78.670	13.466	16.691	1.00	51.87	B	O
ATOM	4525	N	LEU	B	131	78.552	12.710	18.798	1.00	51.13	B	N
ATOM	4526	CA	LEU	B	131	79.941	13.060	19.052	1.00	50.41	B	C
ATOM	4527	CB	LEU	B	131	80.094	13.640	20.456	1.00	48.79	B	C
ATOM	4528	CG	LEU	B	131	79.433	15.003	20.592	1.00	47.95	B	C
ATOM	4529	CD1	LEU	B	131	79.487	15.442	22.028	1.00	47.29	B	C
ATOM	4530	CD2	LEU	B	131	80.107	16.018	19.674	1.00	46.13	B	C
ATOM	4531	C	LEU	B	131	80.895	11.884	18.857	1.00	51.03	B	C
ATOM	4532	O	LEU	B	131	82.079	12.002	19.151	1.00	51.04	B	O
ATOM	4533	N	ARG	B	132	80.368	10.764	18.369	1.00	52.18	B	N
ATOM	4534	CA	ARG	B	132	81.191	9.604	18.104	1.00	53.68	B	C
ATOM	4535	CB	ARG	B	132	80.336	8.375	17.814	1.00	56.41	B	C
ATOM	4536	CG	ARG	B	132	79.865	7.643	19.059	1.00	61.85	B	C
ATOM	4537	CD	ARG	B	132	79.490	6.210	18.698	1.00	65.64	B	C
ATOM	4538	NE	ARG	B	132	78.321	6.162	17.824	1.00	68.94	B	N
ATOM	4539	CZ	ARG	B	132	77.082	5.944	18.247	1.00	70.21	B	C
ATOM	4540	NH1	ARG	B	132	76.846	5.746	19.542	1.00	69.76	B	N
ATOM	4541	NH2	ARG	B	132	76.087	5.925	17.369	1.00	70.24	B	N
ATOM	4542	C	ARG	B	132	82.059	9.922	16.892	1.00	53.03	B	C
ATOM	4543	O	ARG	B	132	81.625	10.641	15.991	1.00	53.16	B	O
ATOM	4544	N	ASN	B	133	83.280	9.391	16.865	1.00	52.86	B	N
ATOM	4545	CA	ASN	B	133	84.203	9.657	15.769	1.00	52.46	B	C
ATOM	4546	CB	ASN	B	133	85.316	8.618	15.763	1.00	52.47	B	C
ATOM	4547	CG	ASN	B	133	86.513	9.064	14.940	1.00	54.12	B	C
ATOM	4548	OD1	ASN	B	133	87.507	8.332	14.803	1.00	56.86	B	O
ATOM	4549	ND2	ASN	B	133	86.431	10.280	14.389	1.00	52.79	B	N
ATOM	4550	C	ASN	B	133	83.544	9.729	14.389	1.00	53.41	B	C
ATOM	4551	O	ASN	B	133	83.859	10.614	13.588	1.00	52.19	B	O
ATOM	4552	N	PHE	B	134	82.636	8.795	14.117	1.00	53.82	B	N
ATOM	4553	CA	PHE	B	134	81.912	8.732	12.839	1.00	54.83	B	C
ATOM	4554	CB	PHE	B	134	82.232	7.427	12.111	1.00	54.80	B	C
ATOM	4555	CG	PHE	B	134	83.581	7.399	11.461	1.00	55.30	B	C
ATOM	4556	CD1	PHE	B	134	83.768	7.947	10.193	1.00	55.31	B	C
ATOM	4557	CD2	PHE	B	134	84.662	6.799	12.103	1.00	55.01	B	C
ATOM	4558	CE1	PHE	B	134	85.018	7.896	9.566	1.00	56.68	B	C
ATOM	4559	CE2	PHE	B	134	85.920	6.739	11.492	1.00	55.57	B	C
ATOM	4560	CZ	PHE	B	134	86.100	7.289	10.217	1.00	56.66	B	C
ATOM	4561	C	PHE	B	134	80.413	8.770	13.091	1.00	55.94	B	C
ATOM	4562	O	PHE	B	134	79.662	7.989	12.504	1.00	56.81	B	O
ATOM	4563	N	GLY	B	135	79.969	9.677	13.955	1.00	57.19	B	N
ATOM	4564	CA	GLY	B	135	78.548	9.749	14.269	1.00	58.28	B	C
ATOM	4565	C	GLY	B	135	77.701	10.645	13.378	1.00	59.41	B	C
ATOM	4566	O	GLY	B	135	76.474	10.567	13.415	1.00	59.06	B	O
ATOM	4567	N	MET	B	136	78.348	11.490	12.579	1.00	61.71	B	N
ATOM	4568	CA	MET	B	136	77.629	12.405	11.695	1.00	61.95	B	C
ATOM	4569	CB	MET	B	136	77.428	13.762	12.385	1.00	62.26	B	C
ATOM	4570	CG	MET	B	136	78.650	14.254	13.174	1.00	64.35	B	C
ATOM	4571	SD	MET	B	136	78.466	15.848	14.076	1.00	67.28	B	S

Figure 3

ATOM	4572	CE	MET	B	136	80.102	16.643	13.755	1.00	65.62	B	C
ATOM	4573	C	MET	B	136	78.273	12.612	10.316	1.00	62.11	B	C
ATOM	4574	O	MET	B	136	79.125	13.489	10.123	1.00	62.69	B	O
ATOM	4575	N	GLY	B	137	77.850	11.798	9.352	1.00	62.05	B	N
ATOM	4576	CA	GLY	B	137	78.380	11.913	8.004	1.00	60.87	B	C
ATOM	4577	C	GLY	B	137	79.669	11.166	7.802	1.00	59.89	B	C
ATOM	4578	O	GLY	B	137	80.140	10.439	8.682	1.00	59.86	B	O
ATOM	4579	N	LYS	B	138	80.242	11.374	6.623	1.00	59.01	B	N
ATOM	4580	CA	LYS	B	138	81.487	10.727	6.218	1.00	59.44	B	C
ATOM	4581	CB	LYS	B	138	81.600	10.788	4.678	1.00	60.84	B	C
ATOM	4582	CG	LYS	B	138	80.302	10.327	3.957	1.00	63.25	B	C
ATOM	4583	CD	LYS	B	138	80.459	10.019	2.446	1.00	65.75	B	C
ATOM	4584	CE	LYS	B	138	80.711	11.254	1.557	1.00	66.54	B	C
ATOM	4585	NZ	LYS	B	138	80.781	10.876	0.106	1.00	64.75	B	N
ATOM	4586	C	LYS	B	138	82.705	11.369	6.903	1.00	57.82	B	C
ATOM	4587	O	LYS	B	138	83.681	10.693	7.241	1.00	57.67	B	O
ATOM	4588	N	ARG	B	139	82.624	12.678	7.122	1.00	55.02	B	N
ATOM	4589	CA	ARG	B	139	83.689	13.421	7.784	1.00	51.66	B	C
ATOM	4590	CB	ARG	B	139	83.424	14.913	7.608	1.00	51.46	B	C
ATOM	4591	CG	ARG	B	139	84.612	15.804	7.803	1.00	50.47	B	C
ATOM	4592	CD	ARG	B	139	84.219	17.217	7.392	1.00	51.85	B	C
ATOM	4593	NE	ARG	B	139	85.124	18.247	7.908	1.00	51.62	B	N
ATOM	4594	CZ	ARG	B	139	86.419	18.329	7.623	1.00	51.12	B	C
ATOM	4595	NH1	ARG	B	139	87.145	19.311	8.150	1.00	50.99	B	N
ATOM	4596	NH2	ARG	B	139	86.983	17.434	6.812	1.00	51.46	B	N
ATOM	4597	C	ARG	B	139	83.663	13.001	9.258	1.00	50.71	B	C
ATOM	4598	O	ARG	B	139	82.610	13.001	9.897	1.00	51.82	B	O
ATOM	4599	N	SER	B	140	84.826	12.635	9.785	1.00	48.23	B	N
ATOM	4600	CA	SER	B	140	84.957	12.157	11.168	1.00	46.32	B	C
ATOM	4601	CB	SER	B	140	85.903	10.963	11.192	1.00	46.91	B	C
ATOM	4602	OG	SER	B	140	87.211	11.376	10.800	1.00	45.77	B	O
ATOM	4603	C	SER	B	140	85.497	13.173	12.155	1.00	44.11	B	C
ATOM	4604	O	SER	B	140	86.252	14.069	11.785	1.00	44.81	B	O
ATOM	4605	N	ILE	B	141	85.157	13.009	13.425	1.00	39.43	B	N
ATOM	4606	CA	ILE	B	141	85.677	13.937	14.407	1.00	36.14	B	C
ATOM	4607	CB	ILE	B	141	85.344	13.499	15.826	1.00	35.46	B	C
ATOM	4608	CG2	ILE	B	141	85.772	14.565	16.805	1.00	35.87	B	C
ATOM	4609	CG1	ILE	B	141	83.840	13.247	15.940	1.00	35.40	B	C
ATOM	4610	CD1	ILE	B	141	82.993	14.477	15.755	1.00	32.73	B	C
ATOM	4611	C	ILE	B	141	87.195	13.994	14.247	1.00	35.05	B	C
ATOM	4612	O	ILE	B	141	87.771	15.072	14.126	1.00	34.41	B	O
ATOM	4613	N	GLU	B	142	87.844	12.839	14.205	1.00	35.19	B	N
ATOM	4614	CA	GLU	B	142	89.290	12.829	14.058	1.00	35.24	B	C
ATOM	4615	CB	GLU	B	142	89.803	11.399	13.991	1.00	36.50	B	C
ATOM	4616	CG	GLU	B	142	91.299	11.281	13.843	1.00	37.95	B	C
ATOM	4617	CD	GLU	B	142	91.744	9.898	14.172	1.00	39.93	B	C
ATOM	4618	OE1	GLU	B	142	90.859	9.096	14.564	1.00	42.29	B	O
ATOM	4619	OE2	GLU	B	142	92.959	9.603	14.056	1.00	40.91	B	O
ATOM	4620	C	GLU	B	142	89.784	13.604	12.842	1.00	34.76	B	C
ATOM	4621	O	GLU	B	142	90.831	14.243	12.886	1.00	32.69	B	O
ATOM	4622	N	ASP	B	143	89.043	13.540	11.745	1.00	38.34	B	N
ATOM	4623	CA	ASP	B	143	89.457	14.266	10.548	1.00	41.74	B	C
ATOM	4624	CB	ASP	B	143	88.538	13.952	9.363	1.00	49.17	B	C
ATOM	4625	CG	ASP	B	143	89.249	13.174	8.267	1.00	56.20	B	C
ATOM	4626	OD1	ASP	B	143	90.447	13.501	7.963	1.00	57.48	B	O
ATOM	4627	OD2	ASP	B	143	88.603	12.250	7.688	1.00	60.62	B	O
ATOM	4628	C	ASP	B	143	89.434	15.769	10.795	1.00	40.91	B	C
ATOM	4629	O	ASP	B	143	90.300	16.496	10.308	1.00	41.54	B	O
ATOM	4630	N	ARG	B	144	88.417	16.229	11.525	1.00	38.77	B	N
ATOM	4631	CA	ARG	B	144	88.256	17.647	11.826	1.00	34.57	B	C
ATOM	4632	CB	ARG	B	144	86.910	17.869	12.535	1.00	35.52	B	C
ATOM	4633	CG	ARG	B	144	85.670	17.412	11.715	1.00	37.69	B	C
ATOM	4634	CD	ARG	B	144	84.366	17.367	12.546	1.00	39.22	B	C
ATOM	4635	NE	ARG	B	144	83.169	16.848	11.851	1.00	40.29	B	N
ATOM	4636	CZ	ARG	B	144	82.480	17.502	10.916	1.00	42.04	B	C
ATOM	4637	NH1	ARG	B	144	82.855	18.714	10.529	1.00	42.00	B	N
ATOM	4638	NH2	ARG	B	144	81.390	16.958	10.395	1.00	43.65	B	N
ATOM	4639	C	ARG	B	144	89.410	18.112	12.695	1.00	31.88	B	C
ATOM	4640	O	ARG	B	144	90.069	19.116	12.412	1.00	32.56	B	O
ATOM	4641	N	VAL	B	145	89.657	17.363	13.759	1.00	28.18	B	N
ATOM	4642	CA	VAL	B	145	90.729	17.724	14.653	1.00	25.12	B	C
ATOM	4643	CB	VAL	B	145	90.728	16.867	15.884	1.00	21.93	B	C
ATOM	4644	CG1	VAL	B	145	91.704	17.422	16.876	1.00	20.72	B	C
ATOM	4645	CG2	VAL	B	145	89.340	16.815	16.460	1.00	18.15	B	C
ATOM	4646	C	VAL	B	145	92.084	17.610	13.982	1.00	26.85	B	C

Figure 3

ATOM	4647	O	VAL	B	145	92.991	18.380	14.286	1.00	25.77	B	O
ATOM	4648	N	GLN	B	146	92.243	16.666	13.064	1.00	28.19	B	N
ATOM	4649	CA	GLN	B	146	93.534	16.554	12.408	1.00	30.34	B	C
ATOM	4650	CB	GLN	B	146	93.602	15.328	11.514	1.00	33.44	B	C
ATOM	4651	CG	GLN	B	146	93.940	14.081	12.275	1.00	39.62	B	C
ATOM	4652	CD	GLN	B	146	94.206	12.908	11.370	1.00	41.56	B	C
ATOM	4653	OE1	GLN	B	146	95.181	12.910	10.619	1.00	44.50	B	O
ATOM	4654	NE2	GLN	B	146	93.333	11.897	11.425	1.00	42.49	B	N
ATOM	4655	C	GLN	B	146	93.808	17.784	11.591	1.00	31.05	B	C
ATOM	4656	O	GLN	B	146	94.951	18.258	11.525	1.00	31.79	B	O
ATOM	4657	N	GLU	B	147	92.753	18.297	10.959	1.00	32.42	B	N
ATOM	4658	CA	GLU	B	147	92.845	19.507	10.126	1.00	32.86	B	C
ATOM	4659	CB	GLU	B	147	91.508	19.811	9.425	1.00	34.03	B	C
ATOM	4660	CG	GLU	B	147	91.465	21.191	8.746	1.00	37.05	B	C
ATOM	4661	CD	GLU	B	147	90.218	21.422	7.867	1.00	39.67	B	C
ATOM	4662	OE1	GLU	B	147	89.085	21.052	8.288	1.00	38.81	B	O
ATOM	4663	OE2	GLU	B	147	90.371	21.996	6.750	1.00	41.95	B	O
ATOM	4664	C	GLU	B	147	93.187	20.681	11.009	1.00	32.21	B	C
ATOM	4665	O	GLU	B	147	94.190	21.374	10.804	1.00	31.90	B	O
ATOM	4666	N	GLU	B	148	92.336	20.894	12.002	1.00	30.56	B	N
ATOM	4667	CA	GLU	B	148	92.572	21.993	12.886	1.00	30.26	B	C
ATOM	4668	CB	GLU	B	148	91.603	21.967	14.054	1.00	30.82	B	C
ATOM	4669	CG	GLU	B	148	91.499	23.316	14.743	1.00	32.47	B	C
ATOM	4670	CD	GLU	B	148	91.124	24.429	13.778	1.00	33.27	B	C
ATOM	4671	OE1	GLU	B	148	90.059	24.330	13.115	1.00	33.04	B	O
ATOM	4672	OE2	GLU	B	148	91.894	25.410	13.687	1.00	33.87	B	O
ATOM	4673	C	GLU	B	148	94.010	21.919	13.366	1.00	30.08	B	C
ATOM	4674	O	GLU	B	148	94.642	22.937	13.603	1.00	27.82	B	O
ATOM	4675	N	ALA	B	149	94.544	20.713	13.471	1.00	30.68	B	N
ATOM	4676	CA	ALA	B	149	95.909	20.547	13.931	1.00	32.90	B	C
ATOM	4677	CB	ALA	B	149	96.240	19.085	14.039	1.00	33.44	B	C
ATOM	4678	C	ALA	B	149	96.990	21.246	13.112	1.00	35.08	B	C
ATOM	4679	O	ALA	B	149	97.818	21.961	13.681	1.00	34.03	B	O
ATOM	4680	N	ARG	B	150	97.025	21.041	11.793	1.00	40.00	B	N
ATOM	4681	CA	ARG	B	150	98.092	21.680	11.012	1.00	43.69	B	C
ATOM	4682	CB	ARG	B	150	98.226	21.073	9.602	1.00	45.27	B	C
ATOM	4683	CG	ARG	B	150	97.013	21.153	8.712	1.00	49.86	B	C
ATOM	4684	CD	ARG	B	150	97.370	20.845	7.228	1.00	53.95	B	C
ATOM	4685	NE	ARG	B	150	96.215	21.030	6.334	1.00	57.18	B	N
ATOM	4686	CZ	ARG	B	150	95.196	20.176	6.216	1.00	58.65	B	C
ATOM	4687	NH1	ARG	B	150	94.187	20.457	5.388	1.00	59.71	B	N
ATOM	4688	NH2	ARG	B	150	95.195	19.034	6.905	1.00	58.05	B	N
ATOM	4689	C	ARG	B	150	97.930	23.181	10.936	1.00	44.37	B	C
ATOM	4690	O	ARG	B	150	98.915	23.923	10.978	1.00	46.37	B	O
ATOM	4691	N	CYS	B	151	96.686	23.632	10.840	1.00	44.25	B	N
ATOM	4692	CA	CYS	B	151	96.409	25.062	10.797	1.00	43.91	B	C
ATOM	4693	CB	CYS	B	151	94.902	25.304	10.871	1.00	44.80	B	C
ATOM	4694	SG	CYS	B	151	94.012	24.762	9.412	1.00	47.34	B	S
ATOM	4695	C	CYS	B	151	97.080	25.681	12.002	1.00	43.93	B	C
ATOM	4696	O	CYS	B	151	97.795	26.677	11.893	1.00	44.99	B	O
ATOM	4697	N	LEU	B	152	96.831	25.064	13.152	1.00	43.13	B	N
ATOM	4698	CA	LEU	B	152	97.388	25.505	14.422	1.00	42.19	B	C
ATOM	4699	CB	LEU	B	152	97.124	24.439	15.490	1.00	39.89	B	C
ATOM	4700	CG	LEU	B	152	97.201	24.809	16.971	1.00	37.78	B	C
ATOM	4701	CD1	LEU	B	152	96.529	23.728	17.779	1.00	36.27	B	C
ATOM	4702	CD2	LEU	B	152	98.632	24.993	17.411	1.00	36.00	B	C
ATOM	4703	C	LEU	B	152	98.878	25.694	14.226	1.00	42.75	B	C
ATOM	4704	O	LEU	B	152	99.455	26.691	14.648	1.00	43.20	B	O
ATOM	4705	N	VAL	B	153	99.488	24.722	13.569	1.00	44.57	B	N
ATOM	4706	CA	VAL	B	153	100.903	24.783	13.301	1.00	47.99	B	C
ATOM	4707	CB	VAL	B	153	101.399	23.535	12.596	1.00	47.52	B	C
ATOM	4708	CG1	VAL	B	153	102.892	23.644	12.330	1.00	48.31	B	C
ATOM	4709	CG2	VAL	B	153	101.081	22.327	13.429	1.00	48.55	B	C
ATOM	4710	C	VAL	B	153	101.160	25.941	12.371	1.00	50.15	B	C
ATOM	4711	O	VAL	B	153	102.027	26.776	12.630	1.00	49.93	B	O
ATOM	4712	N	GLU	B	154	100.419	25.983	11.274	1.00	53.22	B	N
ATOM	4713	CA	GLU	B	154	100.607	27.056	10.324	1.00	56.64	B	C
ATOM	4714	CB	GLU	B	154	99.450	27.088	9.320	1.00	60.24	B	C
ATOM	4715	CG	GLU	B	154	99.888	26.803	7.855	1.00	66.93	B	C
ATOM	4716	CD	GLU	B	154	100.406	25.368	7.610	1.00	70.80	B	C
ATOM	4717	OE1	GLU	B	154	101.455	24.974	8.200	1.00	71.20	B	O
ATOM	4718	OE2	GLU	B	154	99.760	24.641	6.807	1.00	71.86	B	O
ATOM	4719	C	GLU	B	154	100.722	28.369	11.101	1.00	56.94	B	C
ATOM	4720	O	GLU	B	154	101.801	28.955	11.162	1.00	57.48	B	O
ATOM	4721	N	GLU	B	155	99.639	28.804	11.738	1.00	56.10	B	N

Figure 3

ATOM	4722	CA	GLU	B	155	99.665	30.044	12.503	1.00	54.85	B	C
ATOM	4723	CB	GLU	B	155	98.343	30.219	13.234	1.00	55.91	B	C
ATOM	4724	CG	GLU	B	155	97.248	30.607	12.268	1.00	60.44	B	C
ATOM	4725	CD	GLU	B	155	97.318	32.076	11.881	1.00	62.12	B	C
ATOM	4726	OE1	GLU	B	155	96.843	32.434	10.775	1.00	63.81	B	O
ATOM	4727	OE2	GLU	B	155	97.836	32.879	12.696	1.00	63.89	B	O
ATOM	4728	C	GLU	B	155	100.843	30.142	13.457	1.00	53.51	B	C
ATOM	4729	O	GLU	B	155	101.379	31.227	13.676	1.00	53.63	B	O
ATOM	4730	N	LEU	B	156	101.254	29.017	14.021	1.00	52.83	B	N
ATOM	4731	CA	LEU	B	156	102.401	29.020	14.922	1.00	52.60	B	C
ATOM	4732	CB	LEU	B	156	102.533	27.670	15.627	1.00	51.67	B	C
ATOM	4733	CG	LEU	B	156	101.594	27.448	16.803	1.00	51.22	B	C
ATOM	4734	CD1	LEU	B	156	101.653	25.994	17.267	1.00	51.36	B	C
ATOM	4735	CD2	LEU	B	156	101.999	28.390	17.926	1.00	51.10	B	C
ATOM	4736	C	LEU	B	156	103.677	29.299	14.133	1.00	53.27	B	C
ATOM	4737	O	LEU	B	156	104.687	29.708	14.697	1.00	52.53	B	O
ATOM	4738	N	ARG	B	157	103.647	29.076	12.829	1.00	54.21	B	N
ATOM	4739	CA	ARG	B	157	104.845	29.323	12.043	1.00	55.80	B	C
ATOM	4740	CB	ARG	B	157	104.840	28.455	10.778	1.00	55.99	B	C
ATOM	4741	CG	ARG	B	157	106.176	27.774	10.478	1.00	56.99	B	C
ATOM	4742	CD	ARG	B	157	106.145	27.064	9.129	1.00	57.45	B	C
ATOM	4743	NE	ARG	B	157	105.352	25.830	9.091	1.00	56.59	B	N
ATOM	4744	CZ	ARG	B	157	105.789	24.633	9.480	1.00	56.27	B	C
ATOM	4745	NH1	ARG	B	157	107.025	24.497	9.952	1.00	54.34	B	N
ATOM	4746	NH2	ARG	B	157	105.002	23.565	9.358	1.00	56.60	B	N
ATOM	4747	C	ARG	B	157	104.930	30.809	11.684	1.00	56.50	B	C
ATOM	4748	O	ARG	B	157	106.017	31.363	11.494	1.00	55.64	B	O
ATOM	4749	N	LYS	B	158	103.768	31.450	11.616	1.00	58.01	B	N
ATOM	4750	CA	LYS	B	158	103.670	32.867	11.282	1.00	59.27	B	C
ATOM	4751	CB	LYS	B	158	102.190	33.259	11.109	1.00	59.33	B	C
ATOM	4752	CG	LYS	B	158	101.512	32.611	9.887	1.00	59.93	B	C
ATOM	4753	CD	LYS	B	158	100.230	33.349	9.456	1.00	61.30	B	C
ATOM	4754	CE	LYS	B	158	99.582	32.718	8.208	1.00	62.49	B	C
ATOM	4755	NZ	LYS	B	158	100.550	32.527	7.082	1.00	64.38	B	N
ATOM	4756	C	LYS	B	158	104.344	33.763	12.332	1.00	60.44	B	C
ATOM	4757	O	LYS	B	158	104.673	34.918	12.060	1.00	61.51	B	O
ATOM	4758	N	THR	B	159	104.560	33.232	13.526	1.00	61.88	B	N
ATOM	4759	CA	THR	B	159	105.202	34.005	14.578	1.00	62.58	B	C
ATOM	4760	CB	THR	B	159	105.025	33.325	15.939	1.00	62.67	B	C
ATOM	4761	OG1	THR	B	159	106.026	32.307	16.110	1.00	62.71	B	O
ATOM	4762	CG2	THR	B	159	103.640	32.685	16.017	1.00	62.06	B	C
ATOM	4763	C	THR	B	159	106.700	34.132	14.287	1.00	63.42	B	C
ATOM	4764	O	THR	B	159	107.468	34.616	15.119	1.00	62.94	B	O
ATOM	4765	N	LYS	B	160	107.109	33.676	13.108	1.00	64.98	B	N
ATOM	4766	CA	LYS	B	160	108.506	33.757	12.679	1.00	66.56	B	C
ATOM	4767	CB	LYS	B	160	108.797	35.176	12.137	1.00	68.34	B	C
ATOM	4768	CG	LYS	B	160	109.492	35.267	10.754	1.00	69.89	B	C
ATOM	4769	CD	LYS	B	160	109.987	36.704	10.427	1.00	70.40	B	C
ATOM	4770	CE	LYS	B	160	110.766	36.787	9.096	1.00	69.82	B	C
ATOM	4771	NZ	LYS	B	160	111.438	38.107	8.847	1.00	68.03	B	N
ATOM	4772	C	LYS	B	160	109.518	33.415	13.791	1.00	66.60	B	C
ATOM	4773	O	LYS	B	160	110.578	34.036	13.876	1.00	66.15	B	O
ATOM	4774	N	ALA	B	161	109.191	32.444	14.643	1.00	66.58	B	N
ATOM	4775	CA	ALA	B	161	110.091	32.010	15.729	1.00	66.20	B	C
ATOM	4776	CB	ALA	B	161	111.318	31.316	15.139	1.00	66.46	B	C
ATOM	4777	C	ALA	B	161	110.553	33.102	16.699	1.00	65.64	B	C
ATOM	4778	O	ALA	B	161	111.723	33.139	17.103	1.00	65.75	B	O
ATOM	4779	N	SER	B	162	109.635	33.983	17.076	1.00	64.68	B	N
ATOM	4780	CA	SER	B	162	109.946	35.072	17.988	1.00	62.90	B	C
ATOM	4781	CB	SER	B	162	109.701	36.404	17.285	1.00	63.15	B	C
ATOM	4782	OG	SER	B	162	108.392	36.431	16.745	1.00	61.81	B	O
ATOM	4783	C	SER	B	162	109.047	34.955	19.211	1.00	62.04	B	C
ATOM	4784	O	SER	B	162	107.983	34.353	19.143	1.00	62.80	B	O
ATOM	4785	N	PRO	B	163	109.467	35.529	20.351	1.00	61.06	B	N
ATOM	4786	CD	PRO	B	163	110.762	36.205	20.561	1.00	61.26	B	C
ATOM	4787	CA	PRO	B	163	108.697	35.489	21.601	1.00	59.39	B	C
ATOM	4788	CB	PRO	B	163	109.456	36.466	22.497	1.00	60.20	B	C
ATOM	4789	CG	PRO	B	163	110.871	36.242	22.075	1.00	60.85	B	C
ATOM	4790	C	PRO	B	163	107.219	35.852	21.460	1.00	57.72	B	C
ATOM	4791	O	PRO	B	163	106.857	36.845	20.815	1.00	57.48	B	O
ATOM	4792	N	CYS	B	164	106.374	35.040	22.085	1.00	56.04	B	N
ATOM	4793	CA	CYS	B	164	104.940	35.262	22.022	1.00	54.47	B	C
ATOM	4794	CB	CYS	B	164	104.372	34.669	20.738	1.00	55.36	B	C
ATOM	4795	SG	CYS	B	164	103.742	32.974	21.014	1.00	56.18	B	S
ATOM	4796	C	CYS	B	164	104.140	34.641	23.170	1.00	52.70	B	C

Figure 3

ATOM	4797	O	CYS	B	164	104.618	33.772	23.908	1.00	52.62	B	O
ATOM	4798	N	ASP	B	165	102.886	35.082	23.252	1.00	50.24	B	N
ATOM	4799	CA	ASP	B	165	101.935	34.590	24.225	1.00	46.33	B	C
ATOM	4800	CB	ASP	B	165	101.151	35.723	24.869	1.00	49.03	B	C
ATOM	4801	CG	ASP	B	165	100.009	35.206	25.717	1.00	51.64	B	C
ATOM	4802	OD1	ASP	B	165	99.213	36.015	26.252	1.00	53.52	B	O
ATOM	4803	OD2	ASP	B	165	99.907	33.969	25.851	1.00	52.67	B	O
ATOM	4804	C	ASP	B	165	100.933	33.667	23.542	1.00	43.40	B	C
ATOM	4805	O	ASP	B	165	99.955	34.125	22.937	1.00	44.27	B	O
ATOM	4806	N	PRO	B	166	101.139	32.356	23.671	1.00	39.45	B	N
ATOM	4807	CD	PRO	B	166	102.063	31.750	24.635	1.00	38.23	B	C
ATOM	4808	CA	PRO	B	166	100.287	31.327	23.091	1.00	36.21	B	C
ATOM	4809	CB	PRO	B	166	100.922	30.053	23.598	1.00	36.14	B	C
ATOM	4810	CG	PRO	B	166	101.351	30.463	24.967	1.00	36.30	B	C
ATOM	4811	C	PRO	B	166	98.841	31.429	23.533	1.00	34.56	B	C
ATOM	4812	O	PRO	B	166	97.956	30.905	22.865	1.00	35.61	B	O
ATOM	4813	N	THR	B	167	98.590	32.084	24.660	1.00	34.27	B	N
ATOM	4814	CA	THR	B	167	97.218	32.187	25.153	1.00	34.91	B	C
ATOM	4815	CB	THR	B	167	96.981	33.409	26.079	1.00	36.14	B	C
ATOM	4816	OG1	THR	B	167	97.779	33.305	27.268	1.00	36.08	B	O
ATOM	4817	CG2	THR	B	167	95.502	33.463	26.484	1.00	36.63	B	C
ATOM	4818	C	THR	B	167	96.172	32.284	24.043	1.00	36.17	B	C
ATOM	4819	O	THR	B	167	95.197	31.528	24.044	1.00	37.62	B	O
ATOM	4820	N	PHE	B	168	96.360	33.219	23.106	1.00	36.83	B	N
ATOM	4821	CA	PHE	B	168	95.393	33.424	22.015	1.00	35.83	B	C
ATOM	4822	CB	PHE	B	168	95.716	34.714	21.228	1.00	37.43	B	C
ATOM	4823	CG	PHE	B	168	94.644	35.097	20.211	1.00	37.95	B	C
ATOM	4824	CD1	PHE	B	168	94.971	35.286	18.861	1.00	40.06	B	C
ATOM	4825	CD2	PHE	B	168	93.301	35.210	20.595	1.00	37.81	B	C
ATOM	4826	CE1	PHE	B	168	93.987	35.570	17.912	1.00	36.79	B	C
ATOM	4827	CE2	PHE	B	168	92.307	35.494	19.653	1.00	37.47	B	C
ATOM	4828	CZ	PHE	B	168	92.652	35.673	18.311	1.00	37.36	B	C
ATOM	4829	C	PHE	B	168	95.276	32.248	21.050	1.00	33.59	B	C
ATOM	4830	O	PHE	B	168	94.248	31.575	20.996	1.00	32.18	B	O
ATOM	4831	N	ILE	B	169	96.318	32.033	20.265	1.00	31.14	B	N
ATOM	4832	CA	ILE	B	169	96.345	30.934	19.318	1.00	29.91	B	C
ATOM	4833	CB	ILE	B	169	97.761	30.670	18.940	1.00	29.35	B	C
ATOM	4834	CG2	ILE	B	169	97.881	29.374	18.146	1.00	28.51	B	C
ATOM	4835	CG1	ILE	B	169	98.274	31.955	18.295	1.00	31.20	B	C
ATOM	4836	CD1	ILE	B	169	99.635	31.883	17.754	1.00	33.84	B	C
ATOM	4837	C	ILE	B	169	95.740	29.682	19.913	1.00	30.35	B	C
ATOM	4838	O	ILE	B	169	94.747	29.160	19.407	1.00	30.19	B	O
ATOM	4839	N	LEU	B	170	96.337	29.205	20.996	1.00	30.79	B	N
ATOM	4840	CA	LEU	B	170	95.849	28.019	21.670	1.00	30.36	B	C
ATOM	4841	CB	LEU	B	170	96.568	27.828	22.987	1.00	28.30	B	C
ATOM	4842	CG	LEU	B	170	97.814	26.967	22.907	1.00	26.76	B	C
ATOM	4843	CD1	LEU	B	170	98.318	26.854	21.495	1.00	26.74	B	C
ATOM	4844	CD2	LEU	B	170	98.851	27.574	23.800	1.00	25.84	B	C
ATOM	4845	C	LEU	B	170	94.380	28.053	21.951	1.00	32.23	B	C
ATOM	4846	O	LEU	B	170	93.760	27.008	22.033	1.00	35.48	B	O
ATOM	4847	N	GLY	B	171	93.814	29.239	22.124	1.00	34.10	B	N
ATOM	4848	CA	GLY	B	171	92.385	29.311	22.416	1.00	35.23	B	C
ATOM	4849	C	GLY	B	171	91.493	29.161	21.197	1.00	35.23	B	C
ATOM	4850	O	GLY	B	171	90.359	28.681	21.289	1.00	34.10	B	O
ATOM	4851	N	CYS	B	172	92.018	29.590	20.058	1.00	35.63	B	N
ATOM	4852	CA	CYS	B	172	91.302	29.525	18.802	1.00	38.39	B	C
ATOM	4853	CB	CYS	B	172	92.072	30.289	17.727	1.00	42.27	B	C
ATOM	4854	SG	CYS	B	172	92.472	32.003	18.166	1.00	49.13	B	S
ATOM	4855	C	CYS	B	172	91.139	28.075	18.370	1.00	38.11	B	C
ATOM	4856	O	CYS	B	172	90.038	27.633	18.009	1.00	39.52	B	O
ATOM	4857	N	ALA	B	173	92.253	27.344	18.416	1.00	35.42	B	N
ATOM	4858	CA	ALA	B	173	92.301	25.930	18.028	1.00	32.24	B	C
ATOM	4859	CB	ALA	B	173	93.595	25.305	18.512	1.00	32.25	B	C
ATOM	4860	C	ALA	B	173	91.114	25.130	18.540	1.00	30.48	B	C
ATOM	4861	O	ALA	B	173	90.250	24.730	17.766	1.00	29.47	B	O
ATOM	4862	N	PRO	B	174	91.051	24.900	19.856	1.00	30.52	B	N
ATOM	4863	CD	PRO	B	174	91.910	25.489	20.886	1.00	30.51	B	C
ATOM	4864	CA	PRO	B	174	89.965	24.144	20.475	1.00	31.09	B	C
ATOM	4865	CB	PRO	B	174	90.186	24.364	21.969	1.00	30.69	B	C
ATOM	4866	CG	PRO	B	174	91.672	24.572	22.063	1.00	32.01	B	C
ATOM	4867	C	PRO	B	174	88.618	24.659	20.029	1.00	33.18	B	C
ATOM	4868	O	PRO	B	174	87.748	23.891	19.622	1.00	33.76	B	O
ATOM	4869	N	CYS	B	175	88.454	25.972	20.088	1.00	34.72	B	N
ATOM	4870	CA	CYS	B	175	87.196	26.597	19.698	1.00	37.17	B	C
ATOM	4871	CB	CYS	B	175	87.324	28.125	19.741	1.00	39.39	B	C

Figure 3

ATOM	4872	SG	CYS	B	175	85.709	28.982	19.647	1.00	44.04	B	S
ATOM	4873	C	CYS	B	175	86.792	26.159	18.297	1.00	36.16	B	C
ATOM	4874	O	CYS	B	175	85.648	25.751	18.061	1.00	36.21	B	O
ATOM	4875	N	ASN	B	176	87.744	26.231	17.375	1.00	34.30	B	N
ATOM	4876	CA	ASN	B	176	87.479	25.853	16.003	1.00	32.50	B	C
ATOM	4877	CB	ASN	B	176	88.740	25.969	15.175	1.00	33.07	B	C
ATOM	4878	CG	ASN	B	176	88.667	27.103	14.218	1.00	32.89	B	C
ATOM	4879	OD1	ASN	B	176	87.636	27.311	13.590	1.00	31.47	B	O
ATOM	4880	ND2	ASN	B	176	89.750	27.867	14.103	1.00	33.96	B	N
ATOM	4881	C	ASN	B	176	86.927	24.462	15.869	1.00	31.18	B	C
ATOM	4882	O	ASN	B	176	85.997	24.221	15.111	1.00	31.23	B	O
ATOM	4883	N	VAL	B	177	87.523	23.538	16.595	1.00	30.33	B	N
ATOM	4884	CA	VAL	B	177	87.054	22.174	16.549	1.00	29.40	B	C
ATOM	4885	CB	VAL	B	177	87.806	21.333	17.529	1.00	29.37	B	C
ATOM	4886	CG1	VAL	B	177	87.209	19.953	17.577	1.00	28.97	B	C
ATOM	4887	CG2	VAL	B	177	89.278	21.311	17.141	1.00	27.84	B	C
ATOM	4888	C	VAL	B	177	85.576	22.100	16.905	1.00	30.00	B	C
ATOM	4889	O	VAL	B	177	84.797	21.506	16.174	1.00	30.06	B	O
ATOM	4890	N	ILE	B	178	85.192	22.684	18.040	1.00	30.53	B	N
ATOM	4891	CA	ILE	B	178	83.794	22.663	18.462	1.00	31.22	B	C
ATOM	4892	CB	ILE	B	178	83.597	23.376	19.795	1.00	30.11	B	C
ATOM	4893	CG2	ILE	B	178	82.141	23.436	20.113	1.00	30.22	B	C
ATOM	4894	CG1	ILE	B	178	84.277	22.609	20.927	1.00	31.04	B	C
ATOM	4895	CD1	ILE	B	178	85.783	22.624	20.903	1.00	32.20	B	C
ATOM	4896	C	ILE	B	178	82.989	23.404	17.420	1.00	32.98	B	C
ATOM	4897	O	ILE	B	178	81.813	23.110	17.153	1.00	32.24	B	O
ATOM	4898	N	CYS	B	179	83.670	24.380	16.836	1.00	34.97	B	N
ATOM	4899	CA	CYS	B	179	83.145	25.253	15.793	1.00	37.21	B	C
ATOM	4900	CB	CYS	B	179	84.210	26.296	15.466	1.00	37.73	B	C
ATOM	4901	SG	CYS	B	179	83.572	27.907	15.066	1.00	39.52	B	S
ATOM	4902	C	CYS	B	179	82.802	24.469	14.532	1.00	37.67	B	C
ATOM	4903	O	CYS	B	179	81.772	24.694	13.898	1.00	38.11	B	O
ATOM	4904	N	SER	B	180	83.699	23.551	14.184	1.00	37.52	B	N
ATOM	4905	CA	SER	B	180	83.578	22.698	13.008	1.00	36.28	B	C
ATOM	4906	CB	SER	B	180	84.972	22.182	12.644	1.00	37.29	B	C
ATOM	4907	OG	SER	B	180	84.949	21.351	11.498	1.00	40.59	B	O
ATOM	4908	C	SER	B	180	82.632	21.526	13.267	1.00	35.66	B	C
ATOM	4909	O	SER	B	180	82.110	20.925	12.345	1.00	34.88	B	O
ATOM	4910	N	ILE	B	181	82.412	21.203	14.531	1.00	36.48	B	N
ATOM	4911	CA	ILE	B	181	81.541	20.092	14.874	1.00	36.62	B	C
ATOM	4912	CB	ILE	B	181	81.838	19.594	16.293	1.00	35.69	B	C
ATOM	4913	CG2	ILE	B	181	80.905	18.450	16.664	1.00	34.76	B	C
ATOM	4914	CG1	ILE	B	181	83.298	19.176	16.381	1.00	34.54	B	C
ATOM	4915	CD1	ILE	B	181	83.717	18.729	17.752	1.00	34.74	B	C
ATOM	4916	C	ILE	B	181	80.075	20.488	14.806	1.00	38.64	B	C
ATOM	4917	O	ILE	B	181	79.195	19.658	14.585	1.00	38.84	B	O
ATOM	4918	N	ILE	B	182	79.809	21.768	15.003	1.00	39.51	B	N
ATOM	4919	CA	ILE	B	182	78.441	22.223	14.986	1.00	40.16	B	C
ATOM	4920	CB	ILE	B	182	78.209	23.322	15.987	1.00	39.63	B	C
ATOM	4921	CG2	ILE	B	182	76.767	23.759	15.911	1.00	39.33	B	C
ATOM	4922	CG1	ILE	B	182	78.537	22.841	17.378	1.00	39.38	B	C
ATOM	4923	CD1	ILE	B	182	77.521	21.880	17.902	1.00	40.57	B	C
ATOM	4924	C	ILE	B	182	78.062	22.796	13.647	1.00	41.93	B	C
ATOM	4925	O	ILE	B	182	76.946	22.597	13.173	1.00	41.11	B	O
ATOM	4926	N	PHE	B	183	79.007	23.513	13.059	1.00	43.33	B	N
ATOM	4927	CA	PHE	B	183	78.793	24.169	11.798	1.00	44.94	B	C
ATOM	4928	CB	PHE	B	183	79.443	25.539	11.833	1.00	44.91	B	C
ATOM	4929	CG	PHE	B	183	78.914	26.429	12.896	1.00	42.33	B	C
ATOM	4930	CD1	PHE	B	183	79.625	27.571	13.260	1.00	43.97	B	C
ATOM	4931	CD2	PHE	B	183	77.716	26.133	13.541	1.00	43.82	B	C
ATOM	4932	CE1	PHE	B	183	79.152	28.408	14.261	1.00	45.69	B	C
ATOM	4933	CE2	PHE	B	183	77.225	26.963	14.547	1.00	45.10	B	C
ATOM	4934	CZ	PHE	B	183	77.947	28.110	14.914	1.00	45.41	B	C
ATOM	4935	C	PHE	B	183	79.307	23.413	10.610	1.00	48.04	B	C
ATOM	4936	O	PHE	B	183	79.052	23.787	9.473	1.00	49.27	B	O
ATOM	4937	N	HIS	B	184	80.057	22.355	10.857	1.00	52.31	B	N
ATOM	4938	CA	HIS	B	184	80.591	21.563	9.749	1.00	54.82	B	C
ATOM	4939	CB	HIS	B	184	79.503	21.308	8.701	1.00	58.34	B	C
ATOM	4940	CG	HIS	B	184	80.030	21.221	7.309	1.00	63.18	B	C
ATOM	4941	CD2	HIS	B	184	80.469	20.163	6.588	1.00	65.51	B	C
ATOM	4942	ND1	HIS	B	184	80.273	22.338	6.537	1.00	65.39	B	N
ATOM	4943	CE1	HIS	B	184	80.844	21.972	5.406	1.00	67.01	B	C
ATOM	4944	NE2	HIS	B	184	80.977	20.656	5.410	1.00	67.46	B	N
ATOM	4945	C	HIS	B	184	81.802	22.189	9.054	1.00	53.55	B	C
ATOM	4946	O	HIS	B	184	82.584	21.480	8.415	1.00	53.99	B	O

Figure 3

ATOM	4947	N	LYS	B	185	81.970	23.497	9.194	1.00	52.69	B	N
ATOM	4948	CA	LYS	B	185	83.093	24.157	8.549	1.00	53.76	B	C
ATOM	4949	CB	LYS	B	185	82.589	24.908	7.300	1.00	58.14	B	C
ATOM	4950	CG	LYS	B	185	83.257	26.277	7.014	1.00	63.95	B	C
ATOM	4951	CD	LYS	B	185	82.653	26.991	5.778	1.00	66.84	B	C
ATOM	4952	CE	LYS	B	185	82.725	28.531	5.907	1.00	68.43	B	C
ATOM	4953	NZ	LYS	B	185	81.605	29.139	6.713	1.00	69.58	B	N
ATOM	4954	C	LYS	B	185	83.810	25.110	9.486	1.00	51.06	B	C
ATOM	4955	O	LYS	B	185	83.175	25.955	10.105	1.00	52.02	B	O
ATOM	4956	N	ARG	B	186	85.130	24.995	9.587	1.00	47.42	B	N
ATOM	4957	CA	ARG	B	186	85.870	25.891	10.469	1.00	44.35	B	C
ATOM	4958	CB	ARG	B	186	87.296	25.382	10.689	1.00	44.00	B	C
ATOM	4959	CG	ARG	B	186	88.165	25.377	9.451	1.00	41.53	B	C
ATOM	4960	CD	ARG	B	186	89.561	24.878	9.765	1.00	38.85	B	C
ATOM	4961	NE	ARG	B	186	90.425	25.838	10.471	1.00	37.49	B	N
ATOM	4962	CZ	ARG	B	186	91.203	26.735	9.868	1.00	38.65	B	C
ATOM	4963	NH1	ARG	B	186	91.226	26.821	8.545	1.00	39.77	B	N
ATOM	4964	NH2	ARG	B	186	92.002	27.506	10.581	1.00	37.47	B	N
ATOM	4965	C	ARG	B	186	85.918	27.314	9.919	1.00	44.45	B	C
ATOM	4966	O	ARG	B	186	85.271	27.611	8.919	1.00	45.33	B	O
ATOM	4967	N	PHE	B	187	86.666	28.189	10.595	1.00	44.86	B	N
ATOM	4968	CA	PHE	B	187	86.837	29.591	10.199	1.00	44.59	B	C
ATOM	4969	CB	PHE	B	187	86.277	30.557	11.241	1.00	46.44	B	C
ATOM	4970	CG	PHE	B	187	84.798	30.572	11.330	1.00	49.27	B	C
ATOM	4971	CD1	PHE	B	187	84.119	29.519	11.927	1.00	51.22	B	C
ATOM	4972	CD2	PHE	B	187	84.075	31.640	10.823	1.00	51.55	B	C
ATOM	4973	CE1	PHE	B	187	82.732	29.519	12.024	1.00	53.27	B	C
ATOM	4974	CE2	PHE	B	187	82.687	31.658	10.911	1.00	53.72	B	C
ATOM	4975	CZ	PHE	B	187	82.014	30.590	11.514	1.00	54.28	B	C
ATOM	4976	C	PHE	B	187	88.312	29.871	10.137	1.00	44.43	B	C
ATOM	4977	O	PHE	B	187	89.100	29.147	10.726	1.00	44.24	B	O
ATOM	4978	N	ASP	B	188	88.700	30.930	9.438	1.00	47.97	B	N
ATOM	4979	CA	ASP	B	188	90.109	31.272	9.392	1.00	50.95	B	C
ATOM	4980	CB	ASP	B	188	90.406	32.180	8.196	1.00	52.83	B	C
ATOM	4981	CG	ASP	B	188	91.884	32.180	7.818	1.00	55.83	B	C
ATOM	4982	OD1	ASP	B	188	92.671	32.906	8.465	1.00	56.59	B	O
ATOM	4983	OD2	ASP	B	188	92.264	31.443	6.876	1.00	57.72	B	O
ATOM	4984	C	ASP	B	188	90.337	32.000	10.724	1.00	52.36	B	C
ATOM	4985	O	ASP	B	188	89.411	32.601	11.271	1.00	51.48	B	O
ATOM	4986	N	TYR	B	189	91.551	31.932	11.263	1.00	54.34	B	N
ATOM	4987	CA	TYR	B	189	91.833	32.585	12.537	1.00	56.57	B	C
ATOM	4988	CB	TYR	B	189	93.252	32.258	13.013	1.00	56.39	B	C
ATOM	4989	CG	TYR	B	189	93.449	30.817	13.447	1.00	55.67	B	C
ATOM	4990	CD1	TYR	B	189	94.670	30.386	13.976	1.00	55.15	B	C
ATOM	4991	CE1	TYR	B	189	94.877	29.050	14.322	1.00	53.84	B	C
ATOM	4992	CD2	TYR	B	189	92.430	29.868	13.287	1.00	54.91	B	C
ATOM	4993	CE2	TYR	B	189	92.628	28.533	13.634	1.00	54.27	B	C
ATOM	4994	CZ	TYR	B	189	93.853	28.132	14.143	1.00	53.51	B	C
ATOM	4995	OH	TYR	B	189	94.065	26.808	14.433	1.00	53.61	B	O
ATOM	4996	C	TYR	B	189	91.666	34.094	12.480	1.00	58.94	B	C
ATOM	4997	O	TYR	B	189	91.893	34.791	13.475	1.00	59.72	B	O
ATOM	4998	N	LYS	B	190	91.266	34.599	11.320	1.00	59.35	B	N
ATOM	4999	CA	LYS	B	190	91.087	36.034	11.149	1.00	60.04	B	C
ATOM	5000	CB	LYS	B	190	92.039	36.534	10.060	1.00	63.23	B	C
ATOM	5001	CG	LYS	B	190	93.524	36.513	10.467	1.00	67.30	B	C
ATOM	5002	CD	LYS	B	190	94.440	36.039	9.319	1.00	70.75	B	C
ATOM	5003	CE	LYS	B	190	94.301	36.885	8.027	1.00	72.83	B	C
ATOM	5004	NZ	LYS	B	190	94.894	38.268	8.092	1.00	72.62	B	N
ATOM	5005	C	LYS	B	190	89.648	36.430	10.833	1.00	58.50	B	C
ATOM	5006	O	LYS	B	190	89.260	37.575	11.050	1.00	56.42	B	O
ATOM	5007	N	ASP	B	191	88.865	35.475	10.337	1.00	57.75	B	N
ATOM	5008	CA	ASP	B	191	87.465	35.708	9.994	1.00	57.72	B	C
ATOM	5009	CB	ASP	B	191	86.780	34.360	9.739	1.00	60.76	B	C
ATOM	5010	CG	ASP	B	191	85.363	34.505	9.215	1.00	64.66	B	C
ATOM	5011	OD1	ASP	B	191	84.834	33.518	8.646	1.00	67.22	B	O
ATOM	5012	OD2	ASP	B	191	84.774	35.594	9.373	1.00	65.52	B	O
ATOM	5013	C	ASP	B	191	86.754	36.475	11.109	1.00	57.11	B	C
ATOM	5014	O	ASP	B	191	86.890	36.135	12.277	1.00	59.28	B	O
ATOM	5015	N	GLN	B	192	85.979	37.501	10.769	1.00	55.36	B	N
ATOM	5016	CA	GLN	B	192	85.313	38.286	11.813	1.00	52.96	B	C
ATOM	5017	CB	GLN	B	192	84.711	39.558	11.223	1.00	52.66	B	C
ATOM	5018	CG	GLN	B	192	84.636	40.677	12.246	1.00	52.78	B	C
ATOM	5019	CD	GLN	B	192	86.005	40.993	12.848	1.00	53.25	B	C
ATOM	5020	OE1	GLN	B	192	86.978	41.251	12.118	1.00	52.70	B	O
ATOM	5021	NE2	GLN	B	192	86.088	40.971	14.180	1.00	51.70	B	N

Figure 3

ATOM	5022	C	GLN	B	192	84.257	37.558	12.634	1.00	50.98	B	C
ATOM	5023	O	GLN	B	192	84.274	37.649	13.860	1.00	50.13	B	O
ATOM	5024	N	GLN	B	193	83.342	36.858	11.961	1.00	50.13	B	N
ATOM	5025	CA	GLN	B	193	82.270	36.109	12.623	1.00	50.06	B	C
ATOM	5026	CB	GLN	B	193	81.649	35.095	11.646	1.00	52.74	B	C
ATOM	5027	CG	GLN	B	193	81.223	35.633	10.282	1.00	58.77	B	C
ATOM	5028	CD	GLN	B	193	80.868	34.520	9.270	1.00	62.64	B	C
ATOM	5029	OE1	GLN	B	193	79.994	33.676	9.531	1.00	63.30	B	O
ATOM	5030	NE2	GLN	B	193	81.549	34.525	8.102	1.00	63.69	B	N
ATOM	5031	C	GLN	B	193	82.854	35.345	13.813	1.00	48.34	B	C
ATOM	5032	O	GLN	B	193	82.239	35.250	14.883	1.00	46.82	B	O
ATOM	5033	N	PHE	B	194	84.053	34.808	13.576	1.00	45.85	B	N
ATOM	5034	CA	PHE	B	194	84.842	34.016	14.521	1.00	42.78	B	C
ATOM	5035	CB	PHE	B	194	86.022	33.370	13.777	1.00	40.95	B	C
ATOM	5036	CG	PHE	B	194	86.824	32.390	14.605	1.00	38.66	B	C
ATOM	5037	CD1	PHE	B	194	88.201	32.560	14.781	1.00	36.95	B	C
ATOM	5038	CD2	PHE	B	194	86.209	31.308	15.216	1.00	38.02	B	C
ATOM	5039	CE1	PHE	B	194	88.954	31.662	15.558	1.00	33.93	B	C
ATOM	5040	CE2	PHE	B	194	86.948	30.408	15.991	1.00	36.65	B	C
ATOM	5041	CZ	PHE	B	194	88.327	30.591	16.162	1.00	34.37	B	C
ATOM	5042	C	PHE	B	194	85.360	34.858	15.679	1.00	43.21	B	C
ATOM	5043	O	PHE	B	194	84.875	34.730	16.802	1.00	44.44	B	O
ATOM	5044	N	LEU	B	195	86.340	35.718	15.403	1.00	42.53	B	N
ATOM	5045	CA	LEU	B	195	86.926	36.582	16.428	1.00	41.23	B	C
ATOM	5046	CB	LEU	B	195	87.748	37.694	15.787	1.00	41.04	B	C
ATOM	5047	CG	LEU	B	195	89.211	37.355	15.499	1.00	42.01	B	C
ATOM	5048	CD1	LEU	B	195	89.547	37.872	14.112	1.00	41.36	B	C
ATOM	5049	CD2	LEU	B	195	90.141	37.981	16.556	1.00	43.00	B	C
ATOM	5050	C	LEU	B	195	85.875	37.188	17.348	1.00	40.50	B	C
ATOM	5051	O	LEU	B	195	86.172	37.511	18.491	1.00	39.73	B	O
ATOM	5052	N	ASN	B	196	84.657	37.350	16.849	1.00	42.43	B	N
ATOM	5053	CA	ASN	B	196	83.591	37.885	17.671	1.00	44.01	B	C
ATOM	5054	CB	ASN	B	196	82.340	38.144	16.853	1.00	46.95	B	C
ATOM	5055	CG	ASN	B	196	82.420	39.409	16.044	1.00	50.64	B	C
ATOM	5056	OD1	ASN	B	196	81.477	39.733	15.313	1.00	52.97	B	O
ATOM	5057	ND2	ASN	B	196	83.535	40.149	16.174	1.00	51.32	B	N
ATOM	5058	C	ASN	B	196	83.230	36.855	18.711	1.00	43.65	B	C
ATOM	5059	O	ASN	B	196	83.183	37.140	19.903	1.00	45.28	B	O
ATOM	5060	N	LEU	B	197	82.958	35.645	18.238	1.00	43.16	B	N
ATOM	5061	CA	LEU	B	197	82.563	34.548	19.107	1.00	43.05	B	C
ATOM	5062	CB	LEU	B	197	82.199	33.332	18.268	1.00	41.90	B	C
ATOM	5063	CG	LEU	B	197	81.854	32.085	19.067	1.00	42.72	B	C
ATOM	5064	CD1	LEU	B	197	80.824	32.399	20.143	1.00	42.81	B	C
ATOM	5065	CD2	LEU	B	197	81.335	31.023	18.121	1.00	42.76	B	C
ATOM	5066	C	LEU	B	197	83.662	34.193	20.076	1.00	43.59	B	C
ATOM	5067	O	LEU	B	197	83.414	33.903	21.241	1.00	42.79	B	O
ATOM	5068	N	MET	B	198	84.880	34.211	19.567	1.00	45.32	B	N
ATOM	5069	CA	MET	B	198	86.046	33.921	20.362	1.00	47.57	B	C
ATOM	5070	CB	MET	B	198	87.267	34.044	19.462	1.00	50.58	B	C
ATOM	5071	CG	MET	B	198	88.561	33.588	20.060	1.00	54.60	B	C
ATOM	5072	SD	MET	B	198	88.730	31.854	19.802	1.00	57.03	B	S
ATOM	5073	CE	MET	B	198	88.192	31.220	21.393	1.00	57.52	B	C
ATOM	5074	C	MET	B	198	86.094	34.968	21.488	1.00	48.86	B	C
ATOM	5075	O	MET	B	198	86.245	34.627	22.661	1.00	50.04	B	O
ATOM	5076	N	GLU	B	199	85.940	36.238	21.114	1.00	49.54	B	N
ATOM	5077	CA	GLU	B	199	85.967	37.371	22.044	1.00	51.03	B	C
ATOM	5078	CB	GLU	B	199	85.754	38.691	21.264	1.00	54.44	B	C
ATOM	5079	CG	GLU	B	199	85.602	40.003	22.096	1.00	59.17	B	C
ATOM	5080	CD	GLU	B	199	85.504	41.290	21.217	1.00	62.74	B	C
ATOM	5081	OE1	GLU	B	199	86.512	41.653	20.555	1.00	63.87	B	O
ATOM	5082	OE2	GLU	B	199	84.426	41.938	21.196	1.00	63.56	B	O
ATOM	5083	C	GLU	B	199	84.934	37.239	23.169	1.00	49.96	B	C
ATOM	5084	O	GLU	B	199	85.282	37.336	24.351	1.00	50.98	B	O
ATOM	5085	N	LYS	B	200	83.673	37.011	22.805	1.00	48.61	B	N
ATOM	5086	CA	LYS	B	200	82.597	36.856	23.783	1.00	46.63	B	C
ATOM	5087	CB	LYS	B	200	81.254	36.638	23.059	1.00	47.45	B	C
ATOM	5088	CG	LYS	B	200	80.153	37.699	23.312	1.00	50.05	B	C
ATOM	5089	CD	LYS	B	200	80.620	39.168	23.141	1.00	51.73	B	C
ATOM	5090	CE	LYS	B	200	81.219	39.454	21.757	1.00	52.48	B	C
ATOM	5091	NZ	LYS	B	200	81.776	40.839	21.576	1.00	53.40	B	N
ATOM	5092	C	LYS	B	200	82.908	35.677	24.717	1.00	45.00	B	C
ATOM	5093	O	LYS	B	200	82.735	35.773	25.930	1.00	44.17	B	O
ATOM	5094	N	LEU	B	201	83.376	34.567	24.160	1.00	44.69	B	N
ATOM	5095	CA	LEU	B	201	83.697	33.431	25.006	1.00	43.65	B	C
ATOM	5096	CB	LEU	B	201	84.136	32.229	24.175	1.00	42.74	B	C

Figure 3

ATOM	5097	CG	LEU	B	201	82.962	31.444	23.566	1.00	43.52	B	C
ATOM	5098	CD1	LEU	B	201	83.482	30.160	22.938	1.00	44.16	B	C
ATOM	5099	CD2	LEU	B	201	81.920	31.123	24.635	1.00	44.74	B	C
ATOM	5100	C	LEU	B	201	84.776	33.803	26.013	1.00	43.64	B	C
ATOM	5101	O	LEU	B	201	84.623	33.518	27.197	1.00	43.21	B	O
ATOM	5102	N	ASN	B	202	85.852	34.449	25.570	1.00	44.42	B	N
ATOM	5103	CA	ASN	B	202	86.907	34.838	26.505	1.00	46.17	B	C
ATOM	5104	CB	ASN	B	202	88.063	35.527	25.790	1.00	47.52	B	C
ATOM	5105	CG	ASN	B	202	88.891	34.578	24.979	1.00	49.96	B	C
ATOM	5106	OD1	ASN	B	202	89.892	34.974	24.380	1.00	49.56	B	O
ATOM	5107	ND2	ASN	B	202	88.489	33.307	24.952	1.00	51.74	B	N
ATOM	5108	C	ASN	B	202	86.438	35.772	27.594	1.00	47.23	B	C
ATOM	5109	O	ASN	B	202	86.997	35.772	28.686	1.00	46.64	B	O
ATOM	5110	N	GLU	B	203	85.437	36.587	27.297	1.00	48.98	B	N
ATOM	5111	CA	GLU	B	203	84.956	37.528	28.294	1.00	51.22	B	C
ATOM	5112	CB	GLU	B	203	84.046	38.591	27.652	1.00	55.06	B	C
ATOM	5113	CG	GLU	B	203	83.938	39.918	28.446	1.00	61.12	B	C
ATOM	5114	CD	GLU	B	203	83.031	40.966	27.782	1.00	65.28	B	C
ATOM	5115	OE1	GLU	B	203	83.188	41.202	26.549	1.00	67.23	B	O
ATOM	5116	OE2	GLU	B	203	82.175	41.568	28.497	1.00	67.47	B	O
ATOM	5117	C	GLU	B	203	84.219	36.783	29.406	1.00	49.64	B	C
ATOM	5118	O	GLU	B	203	84.536	36.976	30.568	1.00	50.21	B	O
ATOM	5119	N	ASN	B	204	83.271	35.915	29.066	1.00	48.61	B	N
ATOM	5120	CA	ASN	B	204	82.551	35.186	30.103	1.00	47.37	B	C
ATOM	5121	CB	ASN	B	204	81.644	34.137	29.509	1.00	48.09	B	C
ATOM	5122	CG	ASN	B	204	80.530	34.741	28.745	1.00	48.95	B	C
ATOM	5123	OD1	ASN	B	204	79.681	34.047	28.212	1.00	51.65	B	O
ATOM	5124	ND2	ASN	B	204	80.517	36.063	28.688	1.00	48.91	B	N
ATOM	5125	C	ASN	B	204	83.489	34.494	31.043	1.00	47.81	B	C
ATOM	5126	O	ASN	B	204	83.186	34.302	32.219	1.00	47.92	B	O
ATOM	5127	N	ILE	B	205	84.626	34.078	30.515	1.00	47.04	B	N
ATOM	5128	CA	ILE	B	205	85.589	33.408	31.350	1.00	47.61	B	C
ATOM	5129	CB	ILE	B	205	86.702	32.790	30.521	1.00	47.66	B	C
ATOM	5130	CG2	ILE	B	205	87.599	31.987	31.421	1.00	44.73	B	C
ATOM	5131	CG1	ILE	B	205	86.108	31.889	29.437	1.00	48.21	B	C
ATOM	5132	CD1	ILE	B	205	87.164	31.367	28.482	1.00	51.29	B	C
ATOM	5133	C	ILE	B	205	86.183	34.423	32.317	1.00	49.16	B	C
ATOM	5134	O	ILE	B	205	86.152	34.207	33.526	1.00	50.87	B	O
ATOM	5135	N	LYS	B	206	86.705	35.539	31.786	1.00	49.48	B	N
ATOM	5136	CA	LYS	B	206	87.301	36.595	32.595	1.00	49.08	B	C
ATOM	5137	CB	LYS	B	206	87.631	37.809	31.724	1.00	52.13	B	C
ATOM	5138	CG	LYS	B	206	88.781	37.584	30.756	1.00	59.24	B	C
ATOM	5139	CD	LYS	B	206	89.069	38.835	29.942	1.00	63.85	B	C
ATOM	5140	CE	LYS	B	206	90.220	38.610	28.974	1.00	66.06	B	C
ATOM	5141	NZ	LYS	B	206	90.515	39.828	28.168	1.00	64.33	B	N
ATOM	5142	C	LYS	B	206	86.367	37.011	33.727	1.00	47.00	B	C
ATOM	5143	O	LYS	B	206	86.819	37.298	34.830	1.00	46.76	B	O
ATOM	5144	N	ILE	B	207	85.064	37.039	33.438	1.00	46.06	B	N
ATOM	5145	CA	ILE	B	207	84.049	37.411	34.420	1.00	44.33	B	C
ATOM	5146	CB	ILE	B	207	82.645	37.638	33.781	1.00	43.84	B	C
ATOM	5147	CG2	ILE	B	207	81.622	37.964	34.861	1.00	43.89	B	C
ATOM	5148	CG1	ILE	B	207	82.665	38.779	32.777	1.00	44.63	B	C
ATOM	5149	CD1	ILE	B	207	81.313	38.987	32.115	1.00	44.06	B	C
ATOM	5150	C	ILE	B	207	83.874	36.282	35.425	1.00	44.39	B	C
ATOM	5151	O	ILE	B	207	83.820	36.518	36.624	1.00	44.75	B	O
ATOM	5152	N	LEU	B	208	83.773	35.060	34.920	1.00	44.39	B	N
ATOM	5153	CA	LEU	B	208	83.586	33.899	35.761	1.00	45.49	B	C
ATOM	5154	CB	LEU	B	208	83.095	32.721	34.916	1.00	43.71	B	C
ATOM	5155	CG	LEU	B	208	81.602	32.753	34.586	1.00	43.54	B	C
ATOM	5156	CD1	LEU	B	208	81.239	31.663	33.587	1.00	42.54	B	C
ATOM	5157	CD2	LEU	B	208	80.819	32.580	35.870	1.00	43.73	B	C
ATOM	5158	C	LEU	B	208	84.831	33.487	36.540	1.00	48.17	B	C
ATOM	5159	O	LEU	B	208	84.746	32.663	37.452	1.00	48.66	B	O
ATOM	5160	N	SER	B	209	85.979	34.071	36.198	1.00	50.43	B	N
ATOM	5161	CA	SER	B	209	87.256	33.752	36.841	1.00	52.68	B	C
ATOM	5162	CB	SER	B	209	88.355	33.653	35.793	1.00	53.24	B	C
ATOM	5163	OG	SER	B	209	88.776	34.954	35.403	1.00	53.27	B	O
ATOM	5164	C	SER	B	209	87.682	34.796	37.861	1.00	55.00	B	C
ATOM	5165	O	SER	B	209	88.858	34.876	38.236	1.00	55.96	B	O
ATOM	5166	N	SER	B	210	86.740	35.627	38.276	1.00	56.45	B	N
ATOM	5167	CA	SER	B	210	87.059	36.630	39.261	1.00	58.60	B	C
ATOM	5168	CB	SER	B	210	86.213	37.884	39.066	1.00	59.67	B	C
ATOM	5169	OG	SER	B	210	86.195	38.634	40.278	1.00	62.00	B	O
ATOM	5170	C	SER	B	210	86.784	36.066	40.631	1.00	58.78	B	C
ATOM	5171	O	SER	B	210	85.768	35.401	40.844	1.00	59.24	B	O

266/514

Figure 3

ATOM	5172	N	PRO	B	211	87.692	36.320	41.574	1.00	59.06	B	N
ATOM	5173	CD	PRO	B	211	89.026	36.891	41.343	1.00	59.01	B	C
ATOM	5174	CA	PRO	B	211	87.563	35.848	42.944	1.00	59.94	B	C
ATOM	5175	CB	PRO	B	211	88.768	36.461	43.622	1.00	59.15	B	C
ATOM	5176	CG	PRO	B	211	89.795	36.392	42.546	1.00	59.90	B	C
ATOM	5177	C	PRO	B	211	86.264	36.280	43.587	1.00	61.62	B	C
ATOM	5178	O	PRO	B	211	85.566	35.459	44.173	1.00	61.24	B	O
ATOM	5179	N	TRP	B	212	85.920	37.556	43.483	1.00	64.33	B	N
ATOM	5180	CA	TRP	B	212	84.705	37.972	44.139	1.00	67.99	B	C
ATOM	5181	CB	TRP	B	212	84.624	39.522	44.251	1.00	73.15	B	C
ATOM	5182	CG	TRP	B	212	84.020	40.317	43.115	1.00	79.31	B	C
ATOM	5183	CD2	TRP	B	212	82.855	41.163	43.191	1.00	83.37	B	C
ATOM	5184	CE2	TRP	B	212	82.710	41.788	41.928	1.00	84.50	B	C
ATOM	5185	CE3	TRP	B	212	81.919	41.453	44.206	1.00	85.56	B	C
ATOM	5186	CD1	TRP	B	212	84.514	40.461	41.847	1.00	81.72	B	C
ATOM	5187	NE1	TRP	B	212	83.734	41.343	41.132	1.00	82.90	B	N
ATOM	5188	CZ2	TRP	B	212	81.668	42.695	41.649	1.00	85.66	B	C
ATOM	5189	CZ3	TRP	B	212	80.882	42.355	43.928	1.00	85.85	B	C
ATOM	5190	CH2	TRP	B	212	80.769	42.962	42.656	1.00	85.90	B	C
ATOM	5191	C	TRP	B	212	83.429	37.358	43.558	1.00	67.23	B	C
ATOM	5192	O	TRP	B	212	82.343	37.912	43.689	1.00	67.95	B	O
ATOM	5193	N	ILE	B	213	83.551	36.191	42.935	1.00	66.79	B	N
ATOM	5194	CA	ILE	B	213	82.380	35.512	42.384	1.00	66.79	B	C
ATOM	5195	CB	ILE	B	213	82.748	34.612	41.176	1.00	66.20	B	C
ATOM	5196	CG2	ILE	B	213	81.662	33.565	40.937	1.00	64.33	B	C
ATOM	5197	CG1	ILE	B	213	82.867	35.466	39.920	1.00	66.93	B	C
ATOM	5198	CD1	ILE	B	213	81.524	35.967	39.406	1.00	68.02	B	C
ATOM	5199	C	ILE	B	213	81.728	34.649	43.460	1.00	67.64	B	C
ATOM	5200	O	ILE	B	213	80.499	34.535	43.533	1.00	68.30	B	O
ATOM	5201	N	GLN	B	214	82.568	34.032	44.286	1.00	67.36	B	N
ATOM	5202	CA	GLN	B	214	82.094	33.191	45.370	1.00	66.76	B	C
ATOM	5203	CB	GLN	B	214	83.274	32.547	46.094	1.00	67.01	B	C
ATOM	5204	CG	GLN	B	214	83.390	31.071	45.814	1.00	67.71	B	C
ATOM	5205	CD	GLN	B	214	83.337	30.765	44.333	1.00	67.89	B	C
ATOM	5206	OE1	GLN	B	214	84.234	31.139	43.576	1.00	67.63	B	O
ATOM	5207	NE2	GLN	B	214	82.270	30.092	43.907	1.00	66.79	B	N
ATOM	5208	C	GLN	B	214	81.298	34.044	46.338	1.00	65.96	B	C
ATOM	5209	O	GLN	B	214	80.317	33.588	46.930	1.00	66.03	B	O
ATOM	5210	N	VAL	B	215	81.724	35.290	46.501	1.00	63.98	B	N
ATOM	5211	CA	VAL	B	215	81.011	36.178	47.393	1.00	62.35	B	C
ATOM	5212	CB	VAL	B	215	81.642	37.591	47.409	1.00	62.30	B	C
ATOM	5213	CG1	VAL	B	215	80.761	38.552	48.184	1.00	62.40	B	C
ATOM	5214	CG2	VAL	B	215	83.018	37.527	48.069	1.00	61.31	B	C
ATOM	5215	C	VAL	B	215	79.562	36.233	46.912	1.00	61.03	B	C
ATOM	5216	O	VAL	B	215	78.674	36.623	47.660	1.00	62.47	B	O
ATOM	5217	N	TYR	B	216	79.325	35.821	45.669	1.00	58.50	B	N
ATOM	5218	CA	TYR	B	216	77.970	35.812	45.140	1.00	56.96	B	C
ATOM	5219	CB	TYR	B	216	77.965	35.796	43.617	1.00	56.16	B	C
ATOM	5220	CG	TYR	B	216	77.984	37.158	42.984	1.00	56.82	B	C
ATOM	5221	CD1	TYR	B	216	77.147	37.449	41.925	1.00	56.98	B	C
ATOM	5222	CE1	TYR	B	216	77.155	38.690	41.325	1.00	58.80	B	C
ATOM	5223	CD2	TYR	B	216	78.843	38.149	43.435	1.00	57.49	B	C
ATOM	5224	CE2	TYR	B	216	78.863	39.407	42.839	1.00	58.12	B	C
ATOM	5225	CZ	TYR	B	216	78.013	39.668	41.784	1.00	59.49	B	C
ATOM	5226	OH	TYR	B	216	77.996	40.908	41.177	1.00	62.87	B	O
ATOM	5227	C	TYR	B	216	77.194	34.602	45.631	1.00	56.42	B	C
ATOM	5228	O	TYR	B	216	76.129	34.730	46.241	1.00	57.12	B	O
ATOM	5229	N	ASN	B	217	77.722	33.418	45.360	1.00	56.23	B	N
ATOM	5230	CA	ASN	B	217	77.049	32.186	45.753	1.00	54.99	B	C
ATOM	5231	CB	ASN	B	217	77.837	31.000	45.223	1.00	53.94	B	C
ATOM	5232	CG	ASN	B	217	78.061	31.089	43.742	1.00	53.70	B	C
ATOM	5233	OD1	ASN	B	217	77.110	31.109	42.953	1.00	53.29	B	O
ATOM	5234	ND2	ASN	B	217	79.325	31.162	43.346	1.00	52.97	B	N
ATOM	5235	C	ASN	B	217	76.874	32.087	47.252	1.00	55.19	B	C
ATOM	5236	O	ASN	B	217	75.946	31.434	47.742	1.00	54.29	B	O
ATOM	5237	N	ASN	B	218	77.767	32.749	47.974	1.00	55.93	B	N
ATOM	5238	CA	ASN	B	218	77.701	32.755	49.422	1.00	58.12	B	C
ATOM	5239	CB	ASN	B	218	79.055	33.189	50.004	1.00	59.33	B	C
ATOM	5240	CG	ASN	B	218	79.982	32.011	50.281	1.00	61.16	B	C
ATOM	5241	OD1	ASN	B	218	79.679	31.152	51.117	1.00	61.90	B	O
ATOM	5242	ND2	ASN	B	218	81.114	31.961	49.575	1.00	61.97	B	N
ATOM	5243	C	ASN	B	218	76.576	33.680	49.909	1.00	58.09	B	C
ATOM	5244	O	ASN	B	218	75.986	33.461	50.968	1.00	58.23	B	O
ATOM	5245	N	PHE	B	219	76.259	34.696	49.113	1.00	56.89	B	N
ATOM	5246	CA	PHE	B	219	75.210	35.628	49.474	1.00	55.35	B	C

267/514

Figure 3

ATOM	5247	CB	PHE	B	219	75.829	36.918	50.013	1.00	56.31	B	C
ATOM	5248	CG	PHE	B	219	76.898	36.696	51.067	1.00	57.27	B	C
ATOM	5249	CD1	PHE	B	219	78.241	36.924	50.774	1.00	58.48	B	C
ATOM	5250	CD2	PHE	B	219	76.563	36.302	52.357	1.00	59.38	B	C
ATOM	5251	CE1	PHE	B	219	79.236	36.767	51.750	1.00	58.94	B	C
ATOM	5252	CE2	PHE	B	219	77.551	36.142	53.342	1.00	59.97	B	C
ATOM	5253	CZ	PHE	B	219	78.888	36.379	53.033	1.00	58.62	B	C
ATOM	5254	C	PHE	B	219	74.362	35.911	48.236	1.00	54.25	B	C
ATOM	5255	O	PHE	B	219	74.562	36.910	47.554	1.00	54.22	B	O
ATOM	5256	N	PRO	B	220	73.410	35.020	47.918	1.00	53.66	B	N
ATOM	5257	CD	PRO	B	220	72.893	33.931	48.760	1.00	54.57	B	C
ATOM	5258	CA	PRO	B	220	72.551	35.207	46.748	1.00	53.54	B	C
ATOM	5259	CB	PRO	B	220	71.541	34.069	46.870	1.00	54.03	B	C
ATOM	5260	CG	PRO	B	220	71.426	33.888	48.352	1.00	54.23	B	C
ATOM	5261	C	PRO	B	220	71.887	36.560	46.785	1.00	54.16	B	C
ATOM	5262	O	PRO	B	220	71.880	37.297	45.804	1.00	54.80	B	O
ATOM	5263	N	ALA	B	221	71.324	36.876	47.944	1.00	54.60	B	N
ATOM	5264	CA	ALA	B	221	70.722	38.184	48.096	1.00	54.25	B	C
ATOM	5265	CB	ALA	B	221	70.233	38.350	49.550	1.00	56.40	B	C
ATOM	5266	C	ALA	B	221	71.530	39.367	47.657	1.00	53.72	B	C
ATOM	5267	O	ALA	B	221	70.869	40.439	47.430	1.00	55.96	B	O
ATOM	5268	N	LEU	B	222	72.774	39.307	47.358	1.00	52.44	B	N
ATOM	5269	CA	LEU	B	222	73.881	40.052	46.858	1.00	50.64	B	C
ATOM	5270	CB	LEU	B	222	75.233	39.562	47.334	1.00	51.01	B	C
ATOM	5271	CG	LEU	B	222	75.519	39.528	48.830	1.00	51.92	B	C
ATOM	5272	CD1	LEU	B	222	76.889	38.896	49.070	1.00	51.84	B	C
ATOM	5273	CD2	LEU	B	222	75.486	40.928	49.420	1.00	51.73	B	C
ATOM	5274	C	LEU	B	222	73.895	40.395	45.367	1.00	15.00	B	C
ATOM	5275	O	LEU	B	222	73.836	41.638	45.133	1.00	49.09	B	O
ATOM	5276	N	LEU	B	223	73.952	39.470	44.481	1.00	46.32	B	N
ATOM	5277	CA	LEU	B	223	73.857	39.501	42.995	1.00	47.25	B	C
ATOM	5278	CB	LEU	B	223	73.626	38.085	42.534	1.00	46.68	B	C
ATOM	5279	CG	LEU	B	223	74.855	37.157	42.762	1.00	47.03	B	C
ATOM	5280	CD1	LEU	B	223	74.594	36.115	43.802	1.00	49.27	B	C
ATOM	5281	CD2	LEU	B	223	75.435	36.664	41.476	1.00	51.04	B	C
ATOM	5282	C	LEU	B	223	72.588	40.419	42.687	1.00	49.48	B	C
ATOM	5283	O	LEU	B	223	72.954	41.313	41.836	1.00	51.04	B	O
ATOM	5284	CB	ASP	B	224	69.059	41.219	43.660	1.00	67.19	B	C
ATOM	5285	CG	ASP	B	224	68.220	40.069	43.309	1.00	69.59	B	C
ATOM	5286	OD1	ASP	B	224	67.985	39.665	42.166	1.00	70.28	B	O
ATOM	5287	OD2	ASP	B	224	67.555	39.569	44.290	1.00	68.94	B	O
ATOM	5288	C	ASP	B	224	70.639	43.093	43.307	1.00	66.50	B	C
ATOM	5289	O	ASP	B	224	70.233	43.938	42.534	1.00	67.48	B	O
ATOM	5290	N	ASP	B	224	71.556	40.682	43.386	1.00	66.48	B	N
ATOM	5291	CA	ASP	B	224	70.341	41.598	43.097	1.00	66.53	B	C
ATOM	5292	N	TYR	B	225	71.582	43.270	44.218	1.00	67.26	B	N
ATOM	5293	CA	TYR	B	225	72.122	44.590	44.512	1.00	67.21	B	C
ATOM	5294	CB	TYR	B	225	72.589	44.670	45.973	1.00	68.53	B	C
ATOM	5295	CG	TYR	B	225	71.470	44.700	47.001	1.00	70.23	B	C
ATOM	5296	CD1	TYR	B	225	70.498	43.694	47.035	1.00	72.39	B	C
ATOM	5297	CE1	TYR	B	225	69.488	43.689	48.003	1.00	73.64	B	C
ATOM	5298	CD2	TYR	B	225	71.405	45.711	47.965	1.00	72.41	B	C
ATOM	5299	CE2	TYR	B	225	70.397	45.714	48.941	1.00	73.72	B	C
ATOM	5300	CZ	TYR	B	225	69.443	44.693	48.952	1.00	74.27	B	C
ATOM	5301	OH	TYR	B	225	68.455	44.664	49.920	1.00	75.71	B	O
ATOM	5302	C	TYR	B	225	73.248	44.989	43.583	1.00	66.26	B	C
ATOM	5303	O	TYR	B	225	73.559	46.167	43.452	1.00	66.14	B	O
ATOM	5304	N	PHE	B	226	73.871	44.017	42.940	1.00	66.27	B	N
ATOM	5305	CA	PHE	B	226	74.941	44.345	42.021	1.00	67.01	B	C
ATOM	5306	CB	PHE	B	226	76.294	44.146	42.691	1.00	66.57	B	C
ATOM	5307	CG	PHE	B	226	76.577	45.152	43.768	1.00	66.96	B	C
ATOM	5308	CD1	PHE	B	226	75.973	45.048	45.022	1.00	66.26	B	C
ATOM	5309	CD2	PHE	B	226	77.435	46.221	43.523	1.00	68.58	B	C
ATOM	5310	CE1	PHE	B	226	76.223	45.991	46.012	1.00	66.46	B	C
ATOM	5311	CE2	PHE	B	226	77.691	47.170	44.507	1.00	68.19	B	C
ATOM	5312	CZ	PHE	B	226	77.084	47.055	45.757	1.00	67.46	B	C
ATOM	5313	C	PHE	B	226	74.825	43.514	40.763	1.00	67.22	B	C
ATOM	5314	O	PHE	B	226	75.696	42.704	40.460	1.00	67.92	B	O
ATOM	5315	N	PRO	B	227	73.735	43.717	40.003	1.00	67.02	B	N
ATOM	5316	CD	PRO	B	227	72.657	44.692	40.238	1.00	67.54	B	C
ATOM	5317	CA	PRO	B	227	73.495	42.978	38.761	1.00	66.59	B	C
ATOM	5318	CB	PRO	B	227	72.215	43.606	38.224	1.00	66.73	B	C
ATOM	5319	CG	PRO	B	227	71.524	44.085	39.459	1.00	67.83	B	C
ATOM	5320	C	PRO	B	227	74.643	43.109	37.773	1.00	66.06	B	C
ATOM	5321	O	PRO	B	227	74.720	42.333	36.821	1.00	66.24	B	O

Figure 3

ATOM	5322	N	GLY	B	228	75.517	44.094	37.990	1.00	65.44	B	N
ATOM	5323	CA	GLY	B	228	76.652	44.289	37.099	1.00	63.96	B	C
ATOM	5324	C	GLY	B	228	77.131	42.974	36.506	1.00	63.05	B	C
ATOM	5325	O	GLY	B	228	77.078	42.749	35.291	1.00	64.22	B	O
ATOM	5326	N	THR	B	229	77.593	42.085	37.376	1.00	61.34	B	N
ATOM	5327	CA	THR	B	229	78.060	40.782	36.934	1.00	58.02	B	C
ATOM	5328	CB	THR	B	229	79.096	40.219	37.901	1.00	58.24	B	C
ATOM	5329	OG1	THR	B	229	80.265	41.051	37.873	1.00	58.34	B	O
ATOM	5330	CG2	THR	B	229	79.472	38.800	37.516	1.00	57.93	B	C
ATOM	5331	C	THR	B	229	76.847	39.873	36.893	1.00	55.72	B	C
ATOM	5332	O	THR	B	229	76.114	39.767	37.865	1.00	56.34	B	O
ATOM	5333	N	HIS	B	230	76.643	39.243	35.749	1.00	52.99	B	N
ATOM	5334	CA	HIS	B	230	75.524	38.342	35.499	1.00	52.28	B	C
ATOM	5335	CB	HIS	B	230	74.790	37.919	36.793	1.00	51.90	B	C
ATOM	5336	CG	HIS	B	230	73.493	38.635	37.054	1.00	53.74	B	C
ATOM	5337	CD2	HIS	B	230	73.190	39.617	37.940	1.00	55.30	B	C
ATOM	5338	ND1	HIS	B	230	72.322	38.312	36.416	1.00	54.44	B	N
ATOM	5339	CE1	HIS	B	230	71.338	39.061	36.898	1.00	55.10	B	C
ATOM	5340	NE2	HIS	B	230	71.838	39.856	37.820	1.00	55.50	B	N
ATOM	5341	C	HIS	B	230	74.589	39.014	34.529	1.00	52.07	B	C
ATOM	5342	O	HIS	B	230	73.659	38.397	34.031	1.00	52.43	B	O
ATOM	5343	N	ASN	B	231	74.815	40.290	34.260	1.00	51.47	B	N
ATOM	5344	CA	ASN	B	231	73.978	40.937	33.268	1.00	51.15	B	C
ATOM	5345	CB	ASN	B	231	73.745	42.421	33.569	1.00	51.93	B	C
ATOM	5346	CG	ASN	B	231	72.332	42.698	34.111	1.00	53.46	B	C
ATOM	5347	OD1	ASN	B	231	71.427	41.858	33.993	1.00	52.52	B	O
ATOM	5348	ND2	ASN	B	231	72.136	43.887	34.686	1.00	53.17	B	N
ATOM	5349	C	ASN	B	231	74.790	40.752	32.005	1.00	51.10	B	C
ATOM	5350	O	ASN	B	231	74.243	40.453	30.948	1.00	51.76	B	O
ATOM	5351	N	LYS	B	232	76.109	40.890	32.130	1.00	50.86	B	N
ATOM	5352	CA	LYS	B	232	76.992	40.696	30.980	1.00	51.66	B	C
ATOM	5353	CB	LYS	B	232	78.439	41.100	31.299	1.00	52.42	B	C
ATOM	5354	CG	LYS	B	232	78.620	42.544	31.714	1.00	55.41	B	C
ATOM	5355	CD	LYS	B	232	79.046	42.687	33.176	1.00	58.46	B	C
ATOM	5356	CE	LYS	B	232	80.495	42.265	33.406	1.00	60.49	B	C
ATOM	5357	NZ	LYS	B	232	81.489	43.098	32.661	1.00	62.12	B	N
ATOM	5358	C	LYS	B	232	76.966	39.223	30.591	1.00	51.04	B	C
ATOM	5359	O	LYS	B	232	76.996	38.877	29.402	1.00	51.42	B	O
ATOM	5360	N	LEU	B	233	76.916	38.353	31.592	1.00	48.73	B	N
ATOM	5361	CA	LEU	B	233	76.875	36.927	31.309	1.00	47.64	B	C
ATOM	5362	CB	LEU	B	233	76.911	36.109	32.608	1.00	46.18	B	C
ATOM	5363	CG	LEU	B	233	78.165	36.215	33.493	1.00	44.94	B	C
ATOM	5364	CD1	LEU	B	233	77.918	35.459	34.771	1.00	43.08	B	C
ATOM	5365	CD2	LEU	B	233	79.385	35.682	32.768	1.00	44.26	B	C
ATOM	5366	C	LEU	B	233	75.598	36.627	30.526	1.00	47.40	B	C
ATOM	5367	O	LEU	B	233	75.604	35.762	29.660	1.00	48.49	B	O
ATOM	5368	N	LEU	B	234	74.509	37.345	30.810	1.00	46.87	B	N
ATOM	5369	CA	LEU	B	234	73.267	37.108	30.079	1.00	45.45	B	C
ATOM	5370	CB	LEU	B	234	72.047	37.619	30.864	1.00	45.09	B	C
ATOM	5371	CG	LEU	B	234	71.586	36.796	32.086	1.00	45.83	B	C
ATOM	5372	CD1	LEU	B	234	70.303	37.387	32.680	1.00	45.14	B	C
ATOM	5373	CD2	LEU	B	234	71.347	35.350	31.671	1.00	45.48	B	C
ATOM	5374	C	LEU	B	234	73.321	37.759	28.694	1.00	44.52	B	C
ATOM	5375	O	LEU	B	234	72.819	37.192	27.722	1.00	43.36	B	O
ATOM	5376	N	LYS	B	235	73.944	38.934	28.605	1.00	44.85	B	N
ATOM	5377	CA	LYS	B	235	74.070	39.645	27.335	1.00	46.16	B	C
ATOM	5378	CB	LYS	B	235	74.651	41.051	27.547	1.00	48.83	B	C
ATOM	5379	CG	LYS	B	235	74.685	41.902	26.276	1.00	54.18	B	C
ATOM	5380	CD	LYS	B	235	75.195	43.327	26.507	1.00	57.82	B	C
ATOM	5381	CE	LYS	B	235	74.983	44.236	25.282	1.00	60.01	B	C
ATOM	5382	NZ	LYS	B	235	75.498	45.637	25.473	1.00	60.36	B	N
ATOM	5383	C	LYS	B	235	74.975	38.877	26.383	1.00	44.83	B	C
ATOM	5384	O	LYS	B	235	74.650	38.701	25.210	1.00	45.39	B	O
ATOM	5385	N	ASN	B	236	76.113	38.424	26.894	1.00	43.64	B	N
ATOM	5386	CA	ASN	B	236	77.056	37.675	26.078	1.00	42.12	B	C
ATOM	5387	CB	ASN	B	236	78.364	37.481	26.836	1.00	41.81	B	C
ATOM	5388	CG	ASN	B	236	79.222	38.728	26.812	1.00	42.15	B	C
ATOM	5389	OD1	ASN	B	236	80.102	38.921	27.652	1.00	42.04	B	O
ATOM	5390	ND2	ASN	B	236	78.968	39.589	25.828	1.00	43.31	B	N
ATOM	5391	C	ASN	B	236	76.475	36.343	25.626	1.00	41.45	B	C
ATOM	5392	O	ASN	B	236	76.635	35.959	24.469	1.00	41.30	B	O
ATOM	5393	N	VAL	B	237	75.791	35.647	26.532	1.00	41.23	B	N
ATOM	5394	CA	VAL	B	237	75.164	34.378	26.203	1.00	40.51	B	C
ATOM	5395	CB	VAL	B	237	74.523	33.725	27.455	1.00	39.10	B	C
ATOM	5396	CG1	VAL	B	237	73.551	32.624	27.053	1.00	38.70	B	C

Figure 3

ATOM	5397	CG2	VAL	B	237	75.614	33.151	28.345	1.00	38.69	B	C
ATOM	5398	C	VAL	B	237	74.091	34.619	25.145	1.00	42.19	B	C
ATOM	5399	O	VAL	B	237	73.812	33.750	24.331	1.00	43.52	B	O
ATOM	5400	N	ALA	B	238	73.492	35.800	25.134	1.00	43.19	B	N
ATOM	5401	CA	ALA	B	238	72.475	36.063	24.133	1.00	44.23	B	C
ATOM	5402	CB	ALA	B	238	71.707	37.334	24.478	1.00	46.27	B	C
ATOM	5403	C	ALA	B	238	73.125	36.190	22.756	1.00	43.68	B	C
ATOM	5404	O	ALA	B	238	72.727	35.505	21.817	1.00	45.02	B	O
ATOM	5405	N	PHE	B	239	74.126	37.060	22.640	1.00	43.43	B	N
ATOM	5406	CA	PHE	B	239	74.827	37.275	21.373	1.00	43.06	B	C
ATOM	5407	CB	PHE	B	239	76.033	38.194	21.593	1.00	42.88	B	C
ATOM	5408	CG	PHE	B	239	76.912	38.342	20.391	1.00	44.13	B	C
ATOM	5409	CD1	PHE	B	239	76.368	38.491	19.123	1.00	44.72	B	C
ATOM	5410	CD2	PHE	B	239	78.290	38.350	20.528	1.00	45.21	B	C
ATOM	5411	CE1	PHE	B	239	77.189	38.646	18.006	1.00	45.82	B	C
ATOM	5412	CE2	PHE	B	239	79.121	38.506	19.418	1.00	46.69	B	C
ATOM	5413	CZ	PHE	B	239	78.570	38.654	18.155	1.00	46.56	B	C
ATOM	5414	C	PHE	B	239	75.281	35.965	20.734	1.00	42.45	B	C
ATOM	5415	O	PHE	B	239	75.361	35.858	19.509	1.00	42.92	B	O
ATOM	5416	N	MET	B	240	75.587	34.981	21.573	1.00	43.32	B	N
ATOM	5417	CA	MET	B	240	76.008	33.676	21.095	1.00	43.28	B	C
ATOM	5418	CB	MET	B	240	76.776	32.921	22.194	1.00	42.40	B	C
ATOM	5419	CG	MET	B	240	78.309	33.040	22.117	1.00	39.96	B	C
ATOM	5420	SD	MET	B	240	79.119	32.824	23.720	1.00	39.00	B	S
ATOM	5421	CE	MET	B	240	78.297	31.432	24.304	1.00	38.42	B	C
ATOM	5422	C	MET	B	240	74.757	32.897	20.661	1.00	43.79	B	C
ATOM	5423	O	MET	B	240	74.744	32.322	19.583	1.00	44.82	B	O
ATOM	5424	N	LYS	B	241	73.703	32.901	21.475	1.00	44.45	B	N
ATOM	5425	CA	LYS	B	241	72.475	32.193	21.127	1.00	45.26	B	C
ATOM	5426	CB	LYS	B	241	71.426	32.340	22.240	1.00	45.84	B	C
ATOM	5427	CG	LYS	B	241	71.450	31.271	23.351	1.00	46.20	B	C
ATOM	5428	CD	LYS	B	241	70.770	31.790	24.640	1.00	47.57	B	C
ATOM	5429	CE	LYS	B	241	69.674	30.866	25.184	1.00	47.82	B	C
ATOM	5430	NZ	LYS	B	241	68.404	30.879	24.384	1.00	49.91	B	N
ATOM	5431	C	LYS	B	241	71.889	32.709	19.807	1.00	46.64	B	C
ATOM	5432	O	LYS	B	241	71.278	31.949	19.055	1.00	47.48	B	O
ATOM	5433	N	SER	B	242	72.070	33.995	19.522	1.00	46.71	B	N
ATOM	5434	CA	SER	B	242	71.547	34.566	18.288	1.00	48.01	B	C
ATOM	5435	CB	SER	B	242	71.507	36.089	18.376	1.00	48.56	B	C
ATOM	5436	OG	SER	B	242	71.027	36.641	17.151	1.00	50.12	B	O
ATOM	5437	C	SER	B	242	72.409	34.158	17.105	1.00	48.26	B	C
ATOM	5438	O	SER	B	242	71.904	33.699	16.082	1.00	49.03	B	O
ATOM	5439	N	TYR	B	243	73.718	34.338	17.256	1.00	48.69	B	N
ATOM	5440	CA	TYR	B	243	74.682	33.987	16.217	1.00	48.20	B	C
ATOM	5441	CB	TYR	B	243	76.102	34.102	16.749	1.00	50.25	B	C
ATOM	5442	CG	TYR	B	243	77.159	33.697	15.755	1.00	53.37	B	C
ATOM	5443	CD1	TYR	B	243	77.302	34.376	14.553	1.00	54.77	B	C
ATOM	5444	CE1	TYR	B	243	78.302	34.034	13.647	1.00	56.19	B	C
ATOM	5445	CD2	TYR	B	243	78.042	32.655	16.031	1.00	54.92	B	C
ATOM	5446	CE2	TYR	B	243	79.052	32.301	15.125	1.00	55.23	B	C
ATOM	5447	CZ	TYR	B	243	79.178	32.998	13.938	1.00	55.47	B	C
ATOM	5448	OH	TYR	B	243	80.187	32.690	13.051	1.00	54.95	B	O
ATOM	5449	C	TYR	B	243	74.457	32.567	15.758	1.00	47.59	B	C
ATOM	5450	O	TYR	B	243	74.599	32.265	14.584	1.00	47.82	B	O
ATOM	5451	N	ILE	B	244	74.137	31.695	16.707	1.00	47.54	B	N
ATOM	5452	CA	ILE	B	244	73.884	30.295	16.405	1.00	47.15	B	C
ATOM	5453	CB	ILE	B	244	73.797	29.467	17.678	1.00	46.32	B	C
ATOM	5454	CG2	ILE	B	244	73.183	28.109	17.374	1.00	45.96	B	C
ATOM	5455	CG1	ILE	B	244	75.186	29.357	18.307	1.00	45.56	B	C
ATOM	5456	CD1	ILE	B	244	75.172	28.798	19.715	1.00	45.17	B	C
ATOM	5457	C	ILE	B	244	72.565	30.191	15.676	1.00	47.80	B	C
ATOM	5458	O	ILE	B	244	72.499	29.688	14.559	1.00	48.89	B	O
ATOM	5459	N	LEU	B	245	71.513	30.673	16.325	1.00	49.31	B	N
ATOM	5460	CA	LEU	B	245	70.183	30.662	15.745	1.00	49.50	B	C
ATOM	5461	CB	LEU	B	245	69.283	31.644	16.504	1.00	50.57	B	C
ATOM	5462	CG	LEU	B	245	67.790	31.656	16.175	1.00	53.06	B	C
ATOM	5463	CD1	LEU	B	245	67.511	32.481	14.921	1.00	54.34	B	C
ATOM	5464	CD2	LEU	B	245	67.313	30.215	16.003	1.00	52.66	B	C
ATOM	5465	C	LEU	B	245	70.285	31.060	14.281	1.00	49.73	B	C
ATOM	5466	O	LEU	B	245	69.631	30.467	13.429	1.00	49.38	B	O
ATOM	5467	N	GLU	B	246	71.106	32.069	13.998	1.00	50.41	B	N
ATOM	5468	CA	GLU	B	246	71.310	32.529	12.626	1.00	50.41	B	C
ATOM	5469	CB	GLU	B	246	72.441	33.577	12.592	1.00	52.58	B	C
ATOM	5470	CG	GLU	B	246	72.863	34.092	11.201	1.00	56.02	B	C
ATOM	5471	CD	GLU	B	246	74.064	35.057	11.243	1.00	59.52	B	C

270/514

Figure 3

ATOM	5472	OE1	GLU	B	246	74.063	35.982	12.097	1.00	58.62	B	O
ATOM	5473	OE2	GLU	B	246	75.003	34.897	10.412	1.00	62.01	B	O
ATOM	5474	C	GLU	B	246	71.687	31.298	11.794	1.00	50.34	B	C
ATOM	5475	O	GLU	B	246	71.058	31.002	10.786	1.00	51.45	B	O
ATOM	5476	N	LYS	B	247	72.695	30.566	12.257	1.00	49.68	B	N
ATOM	5477	CA	LYS	B	247	73.177	29.379	11.575	1.00	48.81	B	C
ATOM	5478	CB	LYS	B	247	74.377	28.806	12.334	1.00	47.41	B	C
ATOM	5479	CG	LYS	B	247	75.729	29.065	11.686	1.00	47.15	B	C
ATOM	5480	CD	LYS	B	247	76.109	30.543	11.631	1.00	47.21	B	C
ATOM	5481	CE	LYS	B	247	77.500	30.764	10.994	1.00	47.47	B	C
ATOM	5482	NZ	LYS	B	247	77.587	30.428	9.528	1.00	49.50	B	N
ATOM	5483	C	LYS	B	247	72.124	28.293	11.359	1.00	48.74	B	C
ATOM	5484	O	LYS	B	247	72.071	27.686	10.298	1.00	49.45	B	O
ATOM	5485	N	VAL	B	248	71.278	28.046	12.352	1.00	49.27	B	N
ATOM	5486	CA	VAL	B	248	70.262	27.013	12.214	1.00	51.08	B	C
ATOM	5487	CB	VAL	B	248	69.589	26.698	13.547	1.00	50.98	B	C
ATOM	5488	CG1	VAL	B	248	70.648	26.525	14.616	1.00	52.15	B	C
ATOM	5489	CG2	VAL	B	248	68.606	27.804	13.905	1.00	52.85	B	C
ATOM	5490	C	VAL	B	248	69.178	27.424	11.237	1.00	53.35	B	C
ATOM	5491	O	VAL	B	248	68.189	26.711	11.059	1.00	53.14	B	O
ATOM	5492	N	LYS	B	249	69.338	28.593	10.628	1.00	55.02	B	N
ATOM	5493	CA	LYS	B	249	68.365	29.046	9.652	1.00	56.65	B	C
ATOM	5494	CB	LYS	B	249	68.080	30.544	9.819	1.00	57.72	B	C
ATOM	5495	CG	LYS	B	249	67.178	30.862	11.006	1.00	59.78	B	C
ATOM	5496	CD	LYS	B	249	66.557	32.250	10.876	1.00	61.55	B	C
ATOM	5497	CE	LYS	B	249	65.551	32.542	11.998	1.00	61.89	B	C
ATOM	5498	NZ	LYS	B	249	64.464	31.511	12.100	1.00	60.53	B	N
ATOM	5499	C	LYS	B	249	68.962	28.740	8.288	1.00	56.74	B	C
ATOM	5500	O	LYS	B	249	68.267	28.283	7.389	1.00	55.85	B	O
ATOM	5501	N	GLU	B	250	70.266	28.969	8.156	1.00	58.18	B	N
ATOM	5502	CA	GLU	B	250	70.972	28.686	6.915	1.00	60.53	B	C
ATOM	5503	CB	GLU	B	250	72.413	29.133	7.010	1.00	61.19	B	C
ATOM	5504	CG	GLU	B	250	72.578	30.587	7.279	1.00	63.62	B	C
ATOM	5505	CD	GLU	B	250	74.023	30.952	7.464	1.00	66.37	B	C
ATOM	5506	OE1	GLU	B	250	74.297	32.158	7.666	1.00	67.56	B	O
ATOM	5507	OE2	GLU	B	250	74.882	30.033	7.411	1.00	67.44	B	O
ATOM	5508	C	GLU	B	250	70.973	27.188	6.695	1.00	61.24	B	C
ATOM	5509	O	GLU	B	250	71.083	26.702	5.570	1.00	61.63	B	O
ATOM	5510	N	HIS	B	251	70.871	26.467	7.801	1.00	61.79	B	N
ATOM	5511	CA	HIS	B	251	70.860	25.021	7.790	1.00	62.88	B	C
ATOM	5512	CB	HIS	B	251	71.377	24.485	9.124	1.00	61.61	B	C
ATOM	5513	CG	HIS	B	251	72.865	24.365	9.190	1.00	60.62	B	C
ATOM	5514	CD2	HIS	B	251	73.655	23.298	9.440	1.00	59.65	B	C
ATOM	5515	ND1	HIS	B	251	73.716	25.434	8.994	1.00	60.52	B	N
ATOM	5516	CE1	HIS	B	251	74.966	25.026	9.121	1.00	59.57	B	C
ATOM	5517	NE2	HIS	B	251	74.956	23.733	9.391	1.00	60.02	B	N
ATOM	5518	C	HIS	B	251	69.474	24.463	7.518	1.00	64.15	B	C
ATOM	5519	O	HIS	B	251	69.340	23.496	6.784	1.00	65.83	B	O
ATOM	5520	N	GLN	B	252	68.442	25.057	8.111	1.00	64.80	B	N
ATOM	5521	CA	GLN	B	252	67.087	24.573	7.885	1.00	65.37	B	C
ATOM	5522	CB	GLN	B	252	66.064	25.438	8.622	1.00	64.01	B	C
ATOM	5523	CG	GLN	B	252	65.800	25.008	10.053	1.00	64.90	B	C
ATOM	5524	CD	GLN	B	252	64.853	25.964	10.760	1.00	65.23	B	C
ATOM	5525	OE1	GLN	B	252	63.764	25.571	11.188	1.00	65.86	B	O
ATOM	5526	NE2	GLN	B	252	65.269	27.233	10.887	1.00	65.65	B	N
ATOM	5527	C	GLN	B	252	66.783	24.572	6.393	1.00	66.52	B	C
ATOM	5528	O	GLN	B	252	66.078	23.691	5.899	1.00	66.18	B	O
ATOM	5529	N	GLU	B	253	67.328	25.544	5.669	1.00	68.69	B	N
ATOM	5530	CA	GLU	B	253	67.097	25.634	4.233	1.00	71.12	B	C
ATOM	5531	CB	GLU	B	253	67.469	27.041	3.732	1.00	73.22	B	C
ATOM	5532	CG	GLU	B	253	66.768	27.451	2.433	1.00	77.82	B	C
ATOM	5533	CD	GLU	B	253	67.355	26.782	1.203	1.00	80.76	B	C
ATOM	5534	OE1	GLU	B	253	66.668	26.745	0.150	1.00	82.61	B	O
ATOM	5535	OE2	GLU	B	253	68.511	26.303	1.285	1.00	81.73	B	O
ATOM	5536	C	GLU	B	253	67.873	24.554	3.460	1.00	71.89	B	C
ATOM	5537	O	GLU	B	253	67.267	23.690	2.822	1.00	72.66	B	O
ATOM	5538	N	SER	B	254	69.205	24.598	3.539	1.00	72.93	B	N
ATOM	5539	CA	SER	B	254	70.105	23.657	2.841	1.00	73.01	B	C
ATOM	5540	CB	SER	B	254	71.498	24.306	2.691	1.00	73.07	B	C
ATOM	5541	OG	SER	B	254	72.358	23.597	1.812	1.00	72.63	B	O
ATOM	5542	C	SER	B	254	70.247	22.311	3.571	1.00	72.77	B	C
ATOM	5543	O	SER	B	254	71.195	21.557	3.336	1.00	71.98	B	O
ATOM	5544	N	MET	B	255	69.307	22.018	4.456	1.00	73.82	B	N
ATOM	5545	CA	MET	B	255	69.337	20.777	5.209	1.00	74.60	B	C
ATOM	5546	CB	MET	B	255	68.404	20.871	6.428	1.00	78.04	B	C

Figure 3

ATOM	5547	CG	MET	B	255	67.861	19.542	6.969	1.00	81.63	B	C
ATOM	5548	SD	MET	B	255	66.224	19.105	6.257	1.00	87.34	B	S
ATOM	5549	CE	MET	B	255	65.065	20.025	7.397	1.00	85.70	B	C
ATOM	5550	C	MET	B	255	68.926	19.630	4.308	1.00	73.64	B	C
ATOM	5551	O	MET	B	255	67.889	19.688	3.629	1.00	72.83	B	O
ATOM	5552	N	ASP	B	256	69.764	18.596	4.299	1.00	71.90	B	N
ATOM	5553	CA	ASP	B	256	69.542	17.392	3.506	1.00	69.92	B	C
ATOM	5554	CB	ASP	B	256	70.670	17.230	2.469	1.00	70.72	B	C
ATOM	5555	CG	ASP	B	256	70.518	15.974	1.614	1.00	70.58	B	C
ATOM	5556	OD1	ASP	B	256	69.382	15.449	1.492	1.00	70.64	B	O
ATOM	5557	OD2	ASP	B	256	71.540	15.521	1.048	1.00	71.56	B	O
ATOM	5558	C	ASP	B	256	69.481	16.181	4.434	1.00	68.11	B	C
ATOM	5559	O	ASP	B	256	70.473	15.810	5.067	1.00	66.52	B	O
ATOM	5560	N	MET	B	257	68.286	15.601	4.530	1.00	65.51	B	N
ATOM	5561	CA	MET	B	257	68.058	14.417	5.346	1.00	65.48	B	C
ATOM	5562	CB	MET	B	257	66.563	14.052	5.380	1.00	67.23	B	C
ATOM	5563	CG	MET	B	257	65.605	15.153	5.885	1.00	68.84	B	C
ATOM	5564	SD	MET	B	257	65.079	15.039	7.658	1.00	71.37	B	S
ATOM	5565	CE	MET	B	257	64.097	16.620	7.814	1.00	71.82	B	C
ATOM	5566	C	MET	B	257	68.838	13.331	4.609	1.00	64.97	B	C
ATOM	5567	O	MET	B	257	69.107	13.477	3.414	1.00	66.71	B	O
ATOM	5568	N	ASN	B	258	69.210	12.257	5.299	1.00	65.17	B	N
ATOM	5569	CA	ASN	B	258	69.961	11.176	4.654	1.00	64.71	B	C
ATOM	5570	CB	ASN	B	258	69.333	10.830	3.291	1.00	66.50	B	C
ATOM	5571	CG	ASN	B	258	67.811	10.649	3.358	1.00	68.28	B	C
ATOM	5572	OD1	ASN	B	258	67.313	9.696	3.973	1.00	69.64	B	O
ATOM	5573	ND2	ASN	B	258	67.068	11.565	2.718	1.00	66.98	B	N
ATOM	5574	C	ASN	B	258	71.418	11.593	4.425	1.00	63.11	B	C
ATOM	5575	O	ASN	B	258	72.234	10.784	3.979	1.00	63.10	B	O
ATOM	5576	N	ASN	B	259	71.733	12.852	4.725	1.00	61.91	B	N
ATOM	5577	CA	ASN	B	259	73.081	13.365	4.524	1.00	60.39	B	C
ATOM	5578	CB	ASN	B	259	73.188	13.964	3.130	1.00	61.49	B	C
ATOM	5579	CG	ASN	B	259	73.234	12.914	2.064	1.00	62.22	B	C
ATOM	5580	OD1	ASN	B	259	74.224	12.186	1.941	1.00	64.39	B	O
ATOM	5581	ND2	ASN	B	259	72.161	12.814	1.281	1.00	62.03	B	N
ATOM	5582	C	ASN	B	259	73.537	14.405	5.533	1.00	59.45	B	C
ATOM	5583	O	ASN	B	259	74.125	15.425	5.161	1.00	59.36	B	O
ATOM	5584	N	PRO	B	260	73.293	14.156	6.825	1.00	57.71	B	N
ATOM	5585	CD	PRO	B	260	72.826	12.917	7.472	1.00	57.55	B	C
ATOM	5586	CA	PRO	B	260	73.720	15.135	7.821	1.00	56.35	B	C
ATOM	5587	CB	PRO	B	260	73.254	14.506	9.125	1.00	56.68	B	C
ATOM	5588	CG	PRO	B	260	73.412	13.045	8.858	1.00	57.06	B	C
ATOM	5589	C	PRO	B	260	75.230	15.329	7.775	1.00	54.67	B	C
ATOM	5590	O	PRO	B	260	75.960	14.413	7.402	1.00	53.80	B	O
ATOM	5591	N	GLN	B	261	75.690	16.520	8.152	1.00	53.48	B	N
ATOM	5592	CA	GLN	B	261	77.111	16.809	8.143	1.00	53.59	B	C
ATOM	5593	CB	GLN	B	261	77.464	17.707	6.966	1.00	55.33	B	C
ATOM	5594	CG	GLN	B	261	77.125	17.154	5.603	1.00	59.00	B	C
ATOM	5595	CD	GLN	B	261	78.156	17.583	4.573	1.00	61.42	B	C
ATOM	5596	OE1	GLN	B	261	79.324	17.184	4.658	1.00	62.22	B	O
ATOM	5597	NE2	GLN	B	261	77.739	18.410	3.603	1.00	62.78	B	N
ATOM	5598	C	GLN	B	261	77.634	17.455	9.420	1.00	52.56	B	C
ATOM	5599	O	GLN	B	261	78.845	17.600	9.578	1.00	53.23	B	O
ATOM	5600	N	ASP	B	262	76.741	17.877	10.313	1.00	50.51	B	N
ATOM	5601	CA	ASP	B	262	77.160	18.483	11.586	1.00	48.20	B	C
ATOM	5602	CB	ASP	B	262	77.581	19.947	11.400	1.00	48.05	B	C
ATOM	5603	CG	ASP	B	262	76.466	20.835	10.848	1.00	47.66	B	C
ATOM	5604	OD1	ASP	B	262	76.832	21.824	10.160	1.00	46.01	B	O
ATOM	5605	OD2	ASP	B	262	75.263	20.567	11.108	1.00	45.97	B	O
ATOM	5606	C	ASP	B	262	76.132	18.389	12.702	1.00	47.06	B	C
ATOM	5607	O	ASP	B	262	75.011	17.931	12.496	1.00	46.54	B	O
ATOM	5608	N	PHE	B	263	76.522	18.833	13.889	1.00	45.53	B	N
ATOM	5609	CA	PHE	B	263	75.639	18.759	15.032	1.00	44.41	B	C
ATOM	5610	CB	PHE	B	263	76.202	19.536	16.207	1.00	44.42	B	C
ATOM	5611	CG	PHE	B	263	75.559	19.188	17.509	1.00	44.28	B	C
ATOM	5612	CD1	PHE	B	263	75.968	18.064	18.207	1.00	45.54	B	C
ATOM	5613	CD2	PHE	B	263	74.533	19.964	18.031	1.00	44.61	B	C
ATOM	5614	CE1	PHE	B	263	75.361	17.717	19.410	1.00	46.26	B	C
ATOM	5615	CE2	PHE	B	263	73.920	19.620	19.237	1.00	44.30	B	C
ATOM	5616	CZ	PHE	B	263	74.336	18.495	19.926	1.00	43.94	B	C
ATOM	5617	C	PHE	B	263	74.265	19.300	14.727	1.00	44.75	B	C
ATOM	5618	O	PHE	B	263	73.259	18.666	15.027	1.00	44.07	B	O
ATOM	5619	N	ILE	B	264	74.215	20.485	14.133	1.00	44.93	B	N
ATOM	5620	CA	ILE	B	264	72.927	21.100	13.820	1.00	45.85	B	C
ATOM	5621	CB	ILE	B	264	73.118	22.433	13.098	1.00	44.47	B	C

Figure 3

ATOM	5622	CG2	ILE	B	264	71.773	23.017	12.730	1.00	45.20	B	C
ATOM	5623	CG1	ILE	B	264	73.862	23.400	14.019	1.00	43.05	B	C
ATOM	5624	CD1	ILE	B	264	74.606	24.470	13.283	1.00	40.57	B	C
ATOM	5625	C	ILE	B	264	72.030	20.193	12.987	1.00	47.22	B	C
ATOM	5626	O	ILE	B	264	70.926	19.854	13.418	1.00	47.36	B	O
ATOM	5627	N	ASP	B	265	72.496	19.807	11.800	1.00	48.11	B	N
ATOM	5628	CA	ASP	B	265	71.708	18.930	10.932	1.00	48.71	B	C
ATOM	5629	CB	ASP	B	265	72.571	18.311	9.815	1.00	51.99	B	C
ATOM	5630	CG	ASP	B	265	72.973	19.310	8.734	1.00	55.54	B	C
ATOM	5631	OD1	ASP	B	265	72.097	20.055	8.235	1.00	58.02	B	O
ATOM	5632	OD2	ASP	B	265	74.173	19.333	8.366	1.00	57.00	B	O
ATOM	5633	C	ASP	B	265	71.099	17.804	11.766	1.00	47.73	B	C
ATOM	5634	O	ASP	B	265	69.883	17.654	11.812	1.00	48.27	B	O
ATOM	5635	N	CYS	B	266	71.941	17.025	12.442	1.00	47.92	B	N
ATOM	5636	CA	CYS	B	266	71.447	15.907	13.243	1.00	47.92	B	C
ATOM	5637	CB	CYS	B	266	72.589	15.224	13.988	1.00	46.83	B	C
ATOM	5638	SG	CYS	B	266	74.050	14.907	12.993	1.00	45.03	B	S
ATOM	5639	C	CYS	B	266	70.400	16.352	14.251	1.00	48.66	B	C
ATOM	5640	O	CYS	B	266	69.517	15.581	14.626	1.00	49.40	B	O
ATOM	5641	N	PHE	B	267	70.510	17.592	14.708	1.00	49.73	B	N
ATOM	5642	CA	PHE	B	267	69.547	18.101	15.662	1.00	51.00	B	C
ATOM	5643	CB	PHE	B	267	70.099	19.314	16.428	1.00	50.24	B	C
ATOM	5644	CG	PHE	B	267	69.390	19.581	17.729	1.00	49.19	B	C
ATOM	5645	CD1	PHE	B	267	69.842	19.016	18.914	1.00	48.78	B	C
ATOM	5646	CD2	PHE	B	267	68.223	20.329	17.753	1.00	48.36	B	C
ATOM	5647	CE1	PHE	B	267	69.145	19.199	20.088	1.00	47.51	B	C
ATOM	5648	CE2	PHE	B	267	67.523	20.509	18.928	1.00	48.39	B	C
ATOM	5649	CZ	PHE	B	267	67.981	19.940	20.089	1.00	47.78	B	C
ATOM	5650	C	PHE	B	267	68.311	18.515	14.876	1.00	52.53	B	C
ATOM	5651	O	PHE	B	267	67.189	18.466	15.387	1.00	53.33	B	O
ATOM	5652	N	LEU	B	268	68.508	18.928	13.630	1.00	53.12	B	N
ATOM	5653	CA	LEU	B	268	67.369	19.333	12.822	1.00	53.68	B	C
ATOM	5654	CB	LEU	B	268	67.840	20.068	11.562	1.00	53.59	B	C
ATOM	5655	CG	LEU	B	268	67.761	21.599	11.676	1.00	54.06	B	C
ATOM	5656	CD1	LEU	B	268	68.381	22.066	12.972	1.00	55.12	B	C
ATOM	5657	CD2	LEU	B	268	68.459	22.245	10.487	1.00	55.09	B	C
ATOM	5658	C	LEU	B	268	66.463	18.148	12.458	1.00	55.44	B	C
ATOM	5659	O	LEU	B	268	65.236	18.282	12.502	1.00	55.20	B	O
ATOM	5660	N	MET	B	269	67.069	16.999	12.130	1.00	56.98	B	N
ATOM	5661	CA	MET	B	269	66.320	15.794	11.760	1.00	59.34	B	C
ATOM	5662	CB	MET	B	269	67.140	14.876	10.823	1.00	60.05	B	C
ATOM	5663	CG	MET	B	269	68.458	14.316	11.376	1.00	62.72	B	C
ATOM	5664	SD	MET	B	269	69.254	13.058	10.261	1.00	66.06	B	S
ATOM	5665	CE	MET	B	269	69.481	13.994	8.727	1.00	64.43	B	C
ATOM	5666	C	MET	B	269	65.838	15.005	12.967	1.00	59.39	B	C
ATOM	5667	O	MET	B	269	64.964	14.132	12.870	1.00	58.85	B	O
ATOM	5668	N	LYS	B	270	66.411	15.308	14.116	1.00	60.86	B	N
ATOM	5669	CA	LYS	B	270	65.984	14.625	15.313	1.00	63.21	B	C
ATOM	5670	CB	LYS	B	270	67.010	14.811	16.425	1.00	62.61	B	C
ATOM	5671	CG	LYS	B	270	66.573	14.230	17.750	1.00	62.78	B	C
ATOM	5672	CD	LYS	B	270	66.429	12.716	17.711	1.00	62.60	B	C
ATOM	5673	CE	LYS	B	270	65.886	12.219	19.052	1.00	62.44	B	C
ATOM	5674	NZ	LYS	B	270	65.984	10.741	19.250	1.00	61.09	B	N
ATOM	5675	C	LYS	B	270	64.627	15.224	15.710	1.00	66.08	B	C
ATOM	5676	O	LYS	B	270	63.793	14.540	16.309	1.00	66.10	B	O
ATOM	5677	N	MET	B	271	64.402	16.492	15.357	1.00	68.08	B	N
ATOM	5678	CA	MET	B	271	63.136	17.168	15.661	1.00	69.76	B	C
ATOM	5679	CB	MET	B	271	63.212	18.665	15.343	1.00	70.16	B	C
ATOM	5680	CG	MET	B	271	64.148	19.456	16.235	1.00	71.08	B	C
ATOM	5681	SD	MET	B	271	63.955	21.264	16.059	1.00	71.85	B	S
ATOM	5682	CE	MET	B	271	64.973	21.559	14.616	1.00	70.30	B	C
ATOM	5683	C	MET	B	271	62.026	16.566	14.819	1.00	71.34	B	C
ATOM	5684	O	MET	B	271	60.918	16.316	15.302	1.00	70.75	B	O
ATOM	5685	N	GLU	B	272	62.339	16.350	13.544	1.00	73.69	B	N
ATOM	5686	CA	GLU	B	272	61.392	15.782	12.598	1.00	76.77	B	C
ATOM	5687	CB	GLU	B	272	61.943	15.877	11.159	1.00	77.75	B	C
ATOM	5688	CG	GLU	B	272	60.904	15.649	10.033	1.00	80.19	B	C
ATOM	5689	CD	GLU	B	272	60.265	16.941	9.494	1.00	82.08	B	C
ATOM	5690	OE1	GLU	B	272	59.868	17.818	10.304	1.00	83.11	B	O
ATOM	5691	OE2	GLU	B	272	60.148	17.074	8.248	1.00	82.13	B	O
ATOM	5692	C	GLU	B	272	61.085	14.326	12.982	1.00	78.02	B	C
ATOM	5693	O	GLU	B	272	60.037	13.801	12.615	1.00	78.91	B	O
ATOM	5694	N	LYS	B	273	61.984	13.665	13.713	1.00	79.21	B	N
ATOM	5695	CA	LYS	B	273	61.698	12.290	14.134	1.00	81.62	B	C
ATOM	5696	CB	LYS	B	273	62.971	11.560	14.611	1.00	81.40	B	C

273/514

Figure 3

ATOM	5697	CG	LYS	B	273	63.469	10.446	13.681	1.00	80.97	B	C
ATOM	5698	CD	LYS	B	273	64.672	9.694	14.277	1.00	79.76	B	C
ATOM	5699	CE	LYS	B	273	64.285	8.424	15.048	1.00	79.32	B	C
ATOM	5700	NZ	LYS	B	273	63.442	8.651	16.250	1.00	78.75	B	N
ATOM	5701	C	LYS	B	273	60.667	12.330	15.264	1.00	83.78	B	C
ATOM	5702	O	LYS	B	273	59.829	11.429	15.388	1.00	84.35	B	O
ATOM	5703	N	GLU	B	274	60.735	13.371	16.092	1.00	85.85	B	N
ATOM	5704	CA	GLU	B	274	59.792	13.537	17.203	1.00	87.81	B	C
ATOM	5705	CB	GLU	B	274	60.523	13.807	18.528	1.00	88.21	B	C
ATOM	5706	CG	GLU	B	274	61.444	12.703	19.059	1.00	88.84	B	C
ATOM	5707	CD	GLU	B	274	61.490	12.659	20.596	1.00	89.98	B	C
ATOM	5708	OE1	GLU	B	274	61.827	13.689	21.234	1.00	89.79	B	O
ATOM	5709	OE2	GLU	B	274	61.196	11.580	21.173	1.00	90.42	B	O
ATOM	5710	C	GLU	B	274	58.840	14.706	16.945	1.00	88.99	B	C
ATOM	5711	O	GLU	B	274	58.807	15.662	17.720	1.00	88.80	B	O
ATOM	5712	N	LYS	B	275	58.076	14.662	15.856	1.00	90.84	B	N
ATOM	5713	CA	LYS	B	275	57.145	15.769	15.596	1.00	92.51	B	C
ATOM	5714	CB	LYS	B	275	57.217	16.257	14.141	1.00	92.71	B	C
ATOM	5715	CG	LYS	B	275	56.568	15.304	13.135	1.00	93.07	B	C
ATOM	5716	CD	LYS	B	275	55.942	16.023	11.930	1.00	92.63	B	C
ATOM	5717	CE	LYS	B	275	56.979	16.788	11.106	1.00	92.20	B	C
ATOM	5718	NZ	LYS	B	275	56.398	17.482	9.910	1.00	89.91	B	N
ATOM	5719	C	LYS	B	275	55.699	15.385	15.904	1.00	93.60	B	C
ATOM	5720	O	LYS	B	275	54.837	16.254	15.963	1.00	93.67	B	O
ATOM	5721	N	HIS	B	276	55.427	14.092	16.074	1.00	94.71	B	N
ATOM	5722	CA	HIS	B	276	54.059	13.677	16.363	1.00	96.32	B	C
ATOM	5723	CB	HIS	B	276	53.770	12.279	15.783	1.00	97.55	B	C
ATOM	5724	CG	HIS	B	276	53.459	12.273	14.310	1.00	99.48	B	C
ATOM	5725	CD2	HIS	B	276	53.902	11.476	13.305	1.00	100.35	B	C
ATOM	5726	ND1	HIS	B	276	52.532	13.122	13.737	1.00	100.59	B	N
ATOM	5727	CE1	HIS	B	276	52.415	12.845	12.450	1.00	100.68	B	C
ATOM	5728	NE2	HIS	B	276	53.235	11.849	12.161	1.00	100.47	B	N
ATOM	5729	C	HIS	B	276	53.723	13.717	17.870	1.00	96.16	B	C
ATOM	5730	O	HIS	B	276	52.644	14.183	18.259	1.00	97.04	B	O
ATOM	5731	N	ASN	B	277	54.642	13.226	18.704	1.00	95.48	B	N
ATOM	5732	CA	ASN	B	277	54.481	13.227	20.162	1.00	95.07	B	C
ATOM	5733	CB	ASN	B	277	55.234	12.030	20.777	1.00	94.90	B	C
ATOM	5734	CG	ASN	B	277	55.286	10.814	19.836	1.00	95.36	B	C
ATOM	5735	OD1	ASN	B	277	56.004	10.819	18.827	1.00	94.64	B	O
ATOM	5736	ND2	ASN	B	277	54.521	9.774	20.166	1.00	94.72	B	N
ATOM	5737	C	ASN	B	277	55.126	14.560	20.578	1.00	94.36	B	C
ATOM	5738	O	ASN	B	277	56.330	14.617	20.830	1.00	94.37	B	O
ATOM	5739	N	GLN	B	278	54.311	15.618	20.656	1.00	92.88	B	N
ATOM	5740	CA	GLN	B	278	54.790	16.981	20.931	1.00	90.78	B	C
ATOM	5741	CB	GLN	B	278	53.732	18.007	20.468	1.00	92.71	B	C
ATOM	5742	CG	GLN	B	278	54.310	19.339	19.928	1.00	94.75	B	C
ATOM	5743	CD	GLN	B	278	54.903	19.230	18.514	1.00	96.29	B	C
ATOM	5744	OE1	GLN	B	278	54.179	19.305	17.510	1.00	96.62	B	O
ATOM	5745	NE2	GLN	B	278	56.223	19.045	18.437	1.00	97.65	B	N
ATOM	5746	C	GLN	B	278	55.346	17.419	22.289	1.00	88.62	B	C
ATOM	5747	O	GLN	B	278	55.760	18.581	22.428	1.00	88.03	B	O
ATOM	5748	N	PRO	B	279	55.334	16.547	23.316	1.00	86.91	B	N
ATOM	5749	CD	PRO	B	279	54.736	15.223	23.580	1.00	86.58	B	C
ATOM	5750	CA	PRO	B	279	55.925	17.121	24.532	1.00	85.27	B	C
ATOM	5751	CB	PRO	B	279	55.975	15.927	25.482	1.00	85.50	B	C
ATOM	5752	CG	PRO	B	279	54.733	15.160	25.101	1.00	86.84	B	C
ATOM	5753	C	PRO	B	279	57.330	17.623	24.120	1.00	83.26	B	C
ATOM	5754	O	PRO	B	279	57.753	18.717	24.509	1.00	83.50	B	O
ATOM	5755	N	SER	B	280	58.006	16.811	23.298	1.00	80.24	B	N
ATOM	5756	CA	SER	B	280	59.337	17.078	22.726	1.00	77.42	B	C
ATOM	5757	CB	SER	B	280	59.200	17.703	21.336	1.00	77.72	B	C
ATOM	5758	OG	SER	B	280	60.491	17.986	20.800	1.00	78.85	B	O
ATOM	5759	C	SER	B	280	60.365	17.910	23.489	1.00	75.24	B	C
ATOM	5760	O	SER	B	280	60.177	19.109	23.736	1.00	75.01	B	O
ATOM	5761	N	GLU	B	281	61.487	17.281	23.816	1.00	72.24	B	N
ATOM	5762	CA	GLU	B	281	62.550	17.974	24.545	1.00	67.62	B	C
ATOM	5763	CB	GLU	B	281	63.282	16.971	25.442	1.00	68.81	B	C
ATOM	5764	CG	GLU	B	281	63.454	17.415	26.901	1.00	71.33	B	C
ATOM	5765	CD	GLU	B	281	62.149	17.472	27.689	1.00	72.38	B	C
ATOM	5766	OE1	GLU	B	281	61.391	18.457	27.531	1.00	73.57	B	O
ATOM	5767	OE2	GLU	B	281	61.875	16.526	28.472	1.00	73.31	B	O
ATOM	5768	C	GLU	B	281	63.516	18.624	23.533	1.00	64.19	B	C
ATOM	5769	O	GLU	B	281	64.493	19.274	23.916	1.00	63.18	B	O
ATOM	5770	N	PHE	B	282	63.214	18.459	22.244	1.00	59.60	B	N
ATOM	5771	CA	PHE	B	282	64.049	19.022	21.197	1.00	55.52	B	C

274/514

Figure 3

ATOM	5772	CB	PHE	B	282	64.424	17.958	20.175	1.00	54.02	B	C
ATOM	5773	CG	PHE	B	282	65.320	16.897	20.719	1.00	51.83	B	C
ATOM	5774	CD1	PHE	B	282	64.802	15.860	21.490	1.00	51.43	B	C
ATOM	5775	CD2	PHE	B	282	66.689	16.946	20.487	1.00	50.44	B	C
ATOM	5776	CE1	PHE	B	282	65.637	14.886	22.031	1.00	51.62	B	C
ATOM	5777	CE2	PHE	B	282	67.536	15.978	21.020	1.00	49.74	B	C
ATOM	5778	CZ	PHE	B	282	67.009	14.944	21.794	1.00	50.75	B	C
ATOM	5779	C	PHE	B	282	63.400	20.187	20.477	1.00	54.37	B	C
ATOM	5780	O	PHE	B	282	62.581	19.995	19.576	1.00	54.22	B	O
ATOM	5781	N	THR	B	283	63.769	21.397	20.880	1.00	52.76	B	N
ATOM	5782	CA	THR	B	283	63.230	22.600	20.265	1.00	51.45	B	C
ATOM	5783	CB	THR	B	283	62.504	23.499	21.289	1.00	52.95	B	C
ATOM	5784	OG1	THR	B	283	63.466	24.054	22.196	1.00	54.36	B	O
ATOM	5785	CG2	THR	B	283	61.476	22.695	22.080	1.00	54.03	B	C
ATOM	5786	C	THR	B	283	64.386	23.387	19.698	1.00	50.36	B	C
ATOM	5787	O	THR	B	283	65.539	23.157	20.052	1.00	49.28	B	O
ATOM	5788	N	ILE	B	284	64.075	24.319	18.812	1.00	50.52	B	N
ATOM	5789	CA	ILE	B	284	65.103	25.149	18.217	1.00	50.69	B	C
ATOM	5790	CB	ILE	B	284	64.495	26.222	17.302	1.00	51.43	B	C
ATOM	5791	CG2	ILE	B	284	65.595	26.882	16.482	1.00	50.58	B	C
ATOM	5792	CG1	ILE	B	284	63.429	25.593	16.395	1.00	53.74	B	C
ATOM	5793	CD1	ILE	B	284	63.973	24.583	15.391	1.00	55.57	B	C
ATOM	5794	C	ILE	B	284	65.855	25.840	19.354	1.00	51.91	B	C
ATOM	5795	O	ILE	B	284	67.054	26.071	19.261	1.00	51.67	B	O
ATOM	5796	N	GLU	B	285	65.149	26.172	20.430	1.00	52.50	B	N
ATOM	5797	CA	GLU	B	285	65.805	26.831	21.546	1.00	52.98	B	C
ATOM	5798	CB	GLU	B	285	64.800	27.182	22.642	1.00	55.22	B	C
ATOM	5799	CG	GLU	B	285	65.265	28.317	23.555	1.00	59.27	B	C
ATOM	5800	CD	GLU	B	285	64.408	28.476	24.803	1.00	62.82	B	C
ATOM	5801	OE1	GLU	B	285	63.165	28.382	24.677	1.00	63.35	B	O
ATOM	5802	OE2	GLU	B	285	64.976	28.717	25.902	1.00	63.79	B	O
ATOM	5803	C	GLU	B	285	66.886	25.911	22.113	1.00	51.50	B	C
ATOM	5804	O	GLU	B	285	68.061	26.279	22.144	1.00	50.72	B	O
ATOM	5805	N	SER	B	286	66.488	24.713	22.543	1.00	50.65	B	N
ATOM	5806	CA	SER	B	286	67.428	23.743	23.113	1.00	48.41	B	C
ATOM	5807	CB	SER	B	286	66.726	22.414	23.417	1.00	48.10	B	C
ATOM	5808	OG	SER	B	286	65.667	22.167	22.513	1.00	49.68	B	O
ATOM	5809	C	SER	B	286	68.638	23.501	22.223	1.00	47.27	B	C
ATOM	5810	O	SER	B	286	69.749	23.355	22.718	1.00	46.11	B	O
ATOM	5811	N	LEU	B	287	68.435	23.452	20.916	1.00	47.21	B	N
ATOM	5812	CA	LEU	B	287	69.572	23.267	20.044	1.00	47.53	B	C
ATOM	5813	CB	LEU	B	287	69.170	23.425	18.582	1.00	47.04	B	C
ATOM	5814	CG	LEU	B	287	70.321	23.421	17.576	1.00	46.90	B	C
ATOM	5815	CD1	LEU	B	287	71.109	22.135	17.717	1.00	46.41	B	C
ATOM	5816	CD2	LEU	B	287	69.797	23.588	16.148	1.00	46.99	B	C
ATOM	5817	C	LEU	B	287	70.570	24.352	20.447	1.00	48.73	B	C
ATOM	5818	O	LEU	B	287	71.701	24.053	20.819	1.00	50.57	B	O
ATOM	5819	N	GLU	B	288	70.131	25.607	20.420	1.00	49.70	B	N
ATOM	5820	CA	GLU	B	288	70.976	26.747	20.785	1.00	51.07	B	C
ATOM	5821	CB	GLU	B	288	70.138	28.019	20.892	1.00	53.72	B	C
ATOM	5822	CG	GLU	B	288	69.444	28.442	19.619	1.00	57.64	B	C
ATOM	5823	CD	GLU	B	288	68.382	29.512	19.854	1.00	61.33	B	C
ATOM	5824	OE1	GLU	B	288	67.980	30.191	18.876	1.00	62.67	B	O
ATOM	5825	OE2	GLU	B	288	67.930	29.676	21.014	1.00	63.66	B	O
ATOM	5826	C	GLU	B	288	71.703	26.556	22.108	1.00	50.03	B	C
ATOM	5827	O	GLU	B	288	72.926	26.701	22.189	1.00	49.82	B	O
ATOM	5828	N	ASN	B	289	70.931	26.256	23.150	1.00	48.58	B	N
ATOM	5829	CA	ASN	B	289	71.475	26.041	24.482	1.00	46.94	B	C
ATOM	5830	CB	ASN	B	289	70.358	25.647	25.453	1.00	51.57	B	C
ATOM	5831	CG	ASN	B	289	69.340	26.768	25.673	1.00	55.39	B	C
ATOM	5832	OD1	ASN	B	289	68.366	26.601	26.417	1.00	58.92	B	O
ATOM	5833	ND2	ASN	B	289	69.561	27.911	25.034	1.00	56.07	B	N
ATOM	5834	C	ASN	B	289	72.530	24.949	24.437	1.00	44.40	B	C
ATOM	5835	O	ASN	B	289	73.648	25.133	24.907	1.00	43.86	B	O
ATOM	5836	N	THR	B	290	72.191	23.809	23.860	1.00	41.43	B	N
ATOM	5837	CA	THR	B	290	73.171	22.751	23.813	1.00	38.18	B	C
ATOM	5838	CB	THR	B	290	72.569	21.451	23.240	1.00	38.13	B	C
ATOM	5839	OG1	THR	B	290	71.216	21.316	23.691	1.00	38.91	B	O
ATOM	5840	CG2	THR	B	290	73.353	20.241	23.736	1.00	37.35	B	C
ATOM	5841	C	THR	B	290	74.391	23.188	23.006	1.00	35.59	B	C
ATOM	5842	O	THR	B	290	75.486	22.685	23.213	1.00	35.99	B	O
ATOM	5843	N	ALA	B	291	74.223	24.140	22.103	1.00	34.13	B	N
ATOM	5844	CA	ALA	B	291	75.357	24.595	21.314	1.00	33.37	B	C
ATOM	5845	CB	ALA	B	291	74.886	25.363	20.120	1.00	33.01	B	C
ATOM	5846	C	ALA	B	291	76.269	25.477	22.142	1.00	33.47	B	C

Figure 3

ATOM	5847	O	ALA	B	291	77.475	25.258	22.201	1.00	34.57	B	O
ATOM	5848	N	VAL	B	292	75.701	26.495	22.770	1.00	33.14	B	N
ATOM	5849	CA	VAL	B	292	76.527	27.372	23.569	1.00	32.40	B	C
ATOM	5850	CB	VAL	B	292	75.697	28.395	24.307	1.00	32.46	B	C
ATOM	5851	CG1	VAL	B	292	75.110	29.368	23.325	1.00	31.75	B	C
ATOM	5852	CG2	VAL	B	292	74.617	27.687	25.099	1.00	33.57	B	C
ATOM	5853	C	VAL	B	292	77.296	26.562	24.576	1.00	32.96	B	C
ATOM	5854	O	VAL	B	292	78.474	26.818	24.798	1.00	33.13	B	O
ATOM	5855	N	ASP	B	293	76.632	25.589	25.197	1.00	33.02	B	N
ATOM	5856	CA	ASP	B	293	77.327	24.765	26.183	1.00	34.56	B	C
ATOM	5857	CB	ASP	B	293	76.399	23.698	26.795	1.00	37.72	B	C
ATOM	5858	CG	ASP	B	293	75.334	24.306	27.717	1.00	41.87	B	C
ATOM	5859	OD1	ASP	B	293	74.568	23.540	28.356	1.00	43.62	B	O
ATOM	5860	OD2	ASP	B	293	75.249	25.562	27.811	1.00	45.09	B	O
ATOM	5861	C	ASP	B	293	78.539	24.131	25.483	1.00	33.46	B	C
ATOM	5862	O	ASP	B	293	79.673	24.369	25.894	1.00	33.81	B	O
ATOM	5863	N	LEU	B	294	78.322	23.371	24.414	1.00	29.68	B	N
ATOM	5864	CA	LEU	B	294	79.446	22.778	23.734	1.00	26.68	B	C
ATOM	5865	CB	LEU	B	294	78.997	22.115	22.448	1.00	24.49	B	C
ATOM	5866	CG	LEU	B	294	77.961	21.082	22.875	1.00	22.62	B	C
ATOM	5867	CD1	LEU	B	294	77.575	20.298	21.673	1.00	23.12	B	C
ATOM	5868	CD2	LEU	B	294	78.495	20.154	23.966	1.00	21.20	B	C
ATOM	5869	C	LEU	B	294	80.521	23.813	23.471	1.00	26.91	B	C
ATOM	5870	O	LEU	B	294	81.707	23.524	23.589	1.00	27.24	B	O
ATOM	5871	N	PHE	B	295	80.134	25.031	23.139	1.00	28.45	B	N
ATOM	5872	CA	PHE	B	295	81.143	26.047	22.900	1.00	30.62	B	C
ATOM	5873	CB	PHE	B	295	80.506	27.302	22.328	1.00	30.93	B	C
ATOM	5874	CG	PHE	B	295	80.648	27.404	20.848	1.00	31.09	B	C
ATOM	5875	CD1	PHE	B	295	81.872	27.752	20.280	1.00	32.65	B	C
ATOM	5876	CD2	PHE	B	295	79.574	27.118	20.016	1.00	31.25	B	C
ATOM	5877	CE1	PHE	B	295	82.027	27.801	18.908	1.00	33.38	B	C
ATOM	5878	CE2	PHE	B	295	79.720	27.166	18.646	1.00	31.32	B	C
ATOM	5879	CZ	PHE	B	295	80.949	27.512	18.087	1.00	32.67	B	C
ATOM	5880	C	PHE	B	295	81.930	26.402	24.154	1.00	32.23	B	C
ATOM	5881	O	PHE	B	295	83.156	26.285	24.175	1.00	33.44	B	O
ATOM	5882	N	GLY	B	296	81.230	26.820	25.202	1.00	33.49	B	N
ATOM	5883	CA	GLY	B	296	81.897	27.205	26.431	1.00	33.72	B	C
ATOM	5884	C	GLY	B	296	82.604	26.078	27.141	1.00	34.41	B	C
ATOM	5885	O	GLY	B	296	83.759	26.219	27.552	1.00	35.18	B	O
ATOM	5886	N	ALA	B	297	81.897	24.964	27.294	1.00	34.11	B	N
ATOM	5887	CA	ALA	B	297	82.434	23.788	27.965	1.00	33.96	B	C
ATOM	5888	CB	ALA	B	297	81.348	22.760	28.132	1.00	33.13	B	C
ATOM	5889	C	ALA	B	297	83.592	23.180	27.189	1.00	34.65	B	C
ATOM	5890	O	ALA	B	297	84.508	22.613	27.780	1.00	37.33	B	O
ATOM	5891	N	GLY	B	298	83.550	23.307	25.870	1.00	33.44	B	N
ATOM	5892	CA	GLY	B	298	84.609	22.740	25.073	1.00	32.09	B	C
ATOM	5893	C	GLY	B	298	85.775	23.648	24.772	1.00	32.86	B	C
ATOM	5894	O	GLY	B	298	86.747	23.210	24.167	1.00	35.89	B	O
ATOM	5895	N	THR	B	299	85.721	24.898	25.206	1.00	32.96	B	N
ATOM	5896	CA	THR	B	299	86.812	25.796	24.891	1.00	32.92	B	C
ATOM	5897	CB	THR	B	299	86.291	27.122	24.400	1.00	33.29	B	C
ATOM	5898	OG1	THR	B	299	85.348	26.896	23.351	1.00	35.54	B	O
ATOM	5899	CG2	THR	B	299	87.446	27.976	23.878	1.00	35.18	B	C
ATOM	5900	C	THR	B	299	87.804	26.097	25.984	1.00	33.30	B	C
ATOM	5901	O	THR	B	299	88.994	25.787	25.875	1.00	32.60	B	O
ATOM	5902	N	GLU	B	300	87.311	26.739	27.026	1.00	35.97	B	N
ATOM	5903	CA	GLU	B	300	88.148	27.131	28.131	1.00	37.91	B	C
ATOM	5904	CB	GLU	B	300	87.272	27.560	29.317	1.00	43.82	B	C
ATOM	5905	CG	GLU	B	300	88.034	27.914	30.604	1.00	51.85	B	C
ATOM	5906	CD	GLU	B	300	89.330	28.710	30.368	1.00	56.78	B	C
ATOM	5907	OE1	GLU	B	300	89.863	29.238	31.376	1.00	60.33	B	O
ATOM	5908	OE2	GLU	B	300	89.825	28.807	29.206	1.00	58.68	B	O
ATOM	5909	C	GLU	B	300	89.107	26.040	28.560	1.00	37.17	B	C
ATOM	5910	O	GLU	B	300	90.302	26.070	28.232	1.00	36.37	B	O
ATOM	5911	N	THR	B	301	88.552	25.067	29.272	1.00	35.41	B	N
ATOM	5912	CA	THR	B	301	89.288	23.944	29.840	1.00	33.32	B	C
ATOM	5913	CB	THR	B	301	88.306	22.875	30.304	1.00	36.72	B	C
ATOM	5914	OG1	THR	B	301	86.951	23.344	30.168	1.00	40.83	B	O
ATOM	5915	CG2	THR	B	301	88.539	22.595	31.752	1.00	40.90	B	C
ATOM	5916	C	THR	B	301	90.341	23.320	28.949	1.00	30.51	B	C
ATOM	5917	O	THR	B	301	91.485	23.156	29.343	1.00	29.16	B	O
ATOM	5918	N	THR	B	302	89.953	22.988	27.736	1.00	27.68	B	N
ATOM	5919	CA	THR	B	302	90.878	22.396	26.802	1.00	25.88	B	C
ATOM	5920	CB	THR	B	302	90.166	22.176	25.544	1.00	25.65	B	C
ATOM	5921	OG1	THR	B	302	88.861	21.670	25.859	1.00	27.39	B	O

276/514

Figure 3

ATOM	5922	CG2	THR	B	302	90.927	21.224	24.688	1.00	25.20	B	C
ATOM	5923	C	THR	B	302	92.031	23.320	26.533	1.00	26.85	B	C
ATOM	5924	O	THR	B	302	93.218	22.973	26.653	1.00	28.02	B	O
ATOM	5925	N	SER	B	303	91.644	24.522	26.155	1.00	27.80	B	N
ATOM	5926	CA	SER	B	303	92.578	25.579	25.849	1.00	27.43	B	C
ATOM	5927	CB	SER	B	303	91.832	26.905	25.866	1.00	28.46	B	C
ATOM	5928	OG	SER	B	303	92.621	27.911	25.282	1.00	32.26	B	O
ATOM	5929	C	SER	B	303	93.659	25.587	26.916	1.00	27.03	B	C
ATOM	5930	O	SER	B	303	94.831	25.297	26.659	1.00	26.00	B	O
ATOM	5931	N	THR	B	304	93.238	25.899	28.130	1.00	25.02	B	N
ATOM	5932	CA	THR	B	304	94.150	25.978	29.246	1.00	23.00	B	C
ATOM	5933	CB	THR	B	304	93.350	26.079	30.528	1.00	23.42	B	C
ATOM	5934	OG1	THR	B	304	92.322	27.053	30.342	1.00	22.16	B	O
ATOM	5935	CG2	THR	B	304	94.228	26.521	31.668	1.00	25.45	B	C
ATOM	5936	C	THR	B	304	95.154	24.824	29.319	1.00	22.75	B	C
ATOM	5937	O	THR	B	304	96.366	25.045	29.343	1.00	21.68	B	O
ATOM	5938	N	THR	B	305	94.639	23.600	29.350	1.00	21.36	B	N
ATOM	5939	CA	THR	B	305	95.457	22.385	29.413	1.00	18.95	B	C
ATOM	5940	CB	THR	B	305	94.577	21.184	29.133	1.00	20.47	B	C
ATOM	5941	OG1	THR	B	305	93.230	21.548	29.428	1.00	20.70	B	O
ATOM	5942	CG2	THR	B	305	94.959	20.024	30.022	1.00	21.88	B	C
ATOM	5943	C	THR	B	305	96.585	22.499	28.378	1.00	17.68	B	C
ATOM	5944	O	THR	B	305	97.757	22.372	28.712	1.00	14.31	B	O
ATOM	5945	N	LEU	B	306	96.213	22.747	27.128	1.00	15.48	B	N
ATOM	5946	CA	LEU	B	306	97.207	22.948	26.114	1.00	16.12	B	C
ATOM	5947	CB	LEU	B	306	96.594	23.402	24.823	1.00	16.12	B	C
ATOM	5948	CG	LEU	B	306	95.930	22.251	24.152	1.00	18.74	B	C
ATOM	5949	CD1	LEU	B	306	95.025	22.788	23.090	1.00	18.93	B	C
ATOM	5950	CD2	LEU	B	306	96.972	21.303	23.563	1.00	21.46	B	C
ATOM	5951	C	LEU	B	306	98.180	24.019	26.561	1.00	18.08	B	C
ATOM	5952	O	LEU	B	306	99.385	23.809	26.541	1.00	19.27	B	O
ATOM	5953	N	ARG	B	307	97.678	25.177	26.973	1.00	19.37	B	N
ATOM	5954	CA	ARG	B	307	98.576	26.260	27.396	1.00	19.79	B	C
ATOM	5955	CB	ARG	B	307	97.779	27.479	27.896	1.00	21.32	B	C
ATOM	5956	CG	ARG	B	307	98.565	28.806	27.911	1.00	23.50	B	C
ATOM	5957	CD	ARG	B	307	97.888	29.863	28.806	1.00	25.91	B	C
ATOM	5958	NE	ARG	B	307	96.425	29.779	28.729	1.00	31.08	B	N
ATOM	5959	CZ	ARG	B	307	95.576	30.189	29.677	1.00	33.91	B	C
ATOM	5960	NH1	ARG	B	307	96.026	30.734	30.808	1.00	37.34	B	N
ATOM	5961	NH2	ARG	B	307	94.265	30.032	29.505	1.00	33.98	B	N
ATOM	5962	C	ARG	B	307	99.506	25.775	28.503	1.00	19.68	B	C
ATOM	5963	O	ARG	B	307	100.723	25.988	28.466	1.00	18.80	B	O
ATOM	5964	N	TYR	B	308	98.912	25.113	29.488	1.00	18.80	B	N
ATOM	5965	CA	TYR	B	308	99.629	24.586	30.643	1.00	16.88	B	C
ATOM	5966	CB	TYR	B	308	98.607	24.090	31.652	1.00	14.24	B	C
ATOM	5967	CG	TYR	B	308	98.969	24.430	33.057	1.00	11.61	B	C
ATOM	5968	CD1	TYR	B	308	97.993	24.651	34.007	1.00	11.98	B	C
ATOM	5969	CE1	TYR	B	308	98.334	24.963	35.311	1.00	11.22	B	C
ATOM	5970	CD2	TYR	B	308	100.294	24.527	33.443	1.00	11.42	B	C
ATOM	5971	CE2	TYR	B	308	100.639	24.832	34.737	1.00	11.20	B	C
ATOM	5972	CZ	TYR	B	308	99.661	25.051	35.668	1.00	10.16	B	C
ATOM	5973	OH	TYR	B	308	100.019	25.359	36.949	1.00	8.36	B	O
ATOM	5974	C	TYR	B	308	100.569	23.462	30.247	1.00	16.86	B	C
ATOM	5975	O	TYR	B	308	101.577	23.215	30.906	1.00	16.33	B	O
ATOM	5976	N	ALA	B	309	100.218	22.760	29.178	1.00	16.71	B	N
ATOM	5977	CA	ALA	B	309	101.067	21.679	28.724	1.00	19.39	B	C
ATOM	5978	CB	ALA	B	309	100.432	20.961	27.550	1.00	19.62	B	C
ATOM	5979	C	ALA	B	309	102.415	22.286	28.320	1.00	20.58	B	C
ATOM	5980	O	ALA	B	309	103.441	21.983	28.922	1.00	21.45	B	O
ATOM	5981	N	LEU	B	310	102.401	23.150	27.312	1.00	23.65	B	N
ATOM	5982	CA	LEU	B	310	103.617	23.790	26.833	1.00	25.38	B	C
ATOM	5983	CB	LEU	B	310	103.286	24.889	25.817	1.00	25.92	B	C
ATOM	5984	CG	LEU	B	310	102.409	24.469	24.647	1.00	26.72	B	C
ATOM	5985	CD1	LEU	B	310	102.170	25.641	23.707	1.00	28.19	B	C
ATOM	5986	CD2	LEU	B	310	103.066	23.337	23.908	1.00	26.72	B	C
ATOM	5987	C	LEU	B	310	104.468	24.382	27.960	1.00	26.28	B	C
ATOM	5988	O	LEU	B	310	105.697	24.304	27.932	1.00	27.54	B	O
ATOM	5989	N	LEU	B	311	103.826	24.994	28.942	1.00	26.28	B	N
ATOM	5990	CA	LEU	B	311	104.581	25.569	30.043	1.00	25.97	B	C
ATOM	5991	CB	LEU	B	311	103.627	26.083	31.119	1.00	25.04	B	C
ATOM	5992	CG	LEU	B	311	104.258	26.768	32.324	1.00	23.78	B	C
ATOM	5993	CD1	LEU	B	311	105.158	27.910	31.887	1.00	24.45	B	C
ATOM	5994	CD2	LEU	B	311	103.151	27.275	33.220	1.00	23.81	B	C
ATOM	5995	C	LEU	B	311	105.502	24.489	30.615	1.00	26.20	B	C
ATOM	5996	O	LEU	B	311	106.730	24.632	30.641	1.00	25.70	B	O

Figure 3

ATOM	5997	N	LEU	B	312	104.894	23.389	31.045	1.00	26.44	B	N
ATOM	5998	CA	LEU	B	312	105.635	22.264	31.610	1.00	25.54	B	C
ATOM	5999	CB	LEU	B	312	104.663	21.145	31.966	1.00	21.77	B	C
ATOM	6000	CG	LEU	B	312	103.739	21.675	33.053	1.00	18.47	B	C
ATOM	6001	CD1	LEU	B	312	102.525	20.797	33.207	1.00	19.53	B	C
ATOM	6002	CD2	LEU	B	312	104.520	21.778	34.332	1.00	16.54	B	C
ATOM	6003	C	LEU	B	312	106.727	21.748	30.676	1.00	26.74	B	C
ATOM	6004	O	LEU	B	312	107.865	21.556	31.107	1.00	28.10	B	O
ATOM	6005	N	LEU	B	313	106.391	21.534	29.405	1.00	26.88	B	N
ATOM	6006	CA	LEU	B	313	107.380	21.047	28.451	1.00	28.17	B	C
ATOM	6007	CB	LEU	B	313	106.730	20.791	27.090	1.00	24.47	B	C
ATOM	6008	CG	LEU	B	313	105.737	19.637	27.091	1.00	22.63	B	C
ATOM	6009	CD1	LEU	B	313	105.155	19.429	25.714	1.00	20.78	B	C
ATOM	6010	CD2	LEU	B	313	106.440	18.390	27.570	1.00	22.07	B	C
ATOM	6011	C	LEU	B	313	108.544	22.029	28.321	1.00	30.65	B	C
ATOM	6012	O	LEU	B	313	109.555	21.732	27.684	1.00	31.95	B	O
ATOM	6013	N	LEU	B	314	108.400	23.200	28.934	1.00	32.72	B	N
ATOM	6014	CA	LEU	B	314	109.452	24.210	28.901	1.00	35.40	B	C
ATOM	6015	CB	LEU	B	314	108.865	25.614	28.973	1.00	35.01	B	C
ATOM	6016	CG	LEU	B	314	108.590	26.319	27.665	1.00	36.14	B	C
ATOM	6017	CD1	LEU	B	314	107.709	27.525	27.903	1.00	37.85	B	C
ATOM	6018	CD2	LEU	B	314	109.898	26.739	27.040	1.00	37.13	B	C
ATOM	6019	C	LEU	B	314	110.328	24.003	30.110	1.00	37.92	B	C
ATOM	6020	O	LEU	B	314	111.548	23.922	30.011	1.00	39.82	B	O
ATOM	6021	N	LYS	B	315	109.672	23.933	31.258	1.00	39.41	B	N
ATOM	6022	CA	LYS	B	315	110.346	23.736	32.523	1.00	41.54	B	C
ATOM	6023	CB	LYS	B	315	109.310	23.621	33.639	1.00	41.46	B	C
ATOM	6024	CG	LYS	B	315	109.864	23.350	35.019	1.00	42.70	B	C
ATOM	6025	CD	LYS	B	315	110.166	24.630	35.769	1.00	45.46	B	C
ATOM	6026	CE	LYS	B	315	110.238	24.374	37.277	1.00	49.13	B	C
ATOM	6027	NZ	LYS	B	315	110.453	25.633	38.076	1.00	52.38	B	N
ATOM	6028	C	LYS	B	315	111.184	22.460	32.452	1.00	44.25	B	C
ATOM	6029	O	LYS	B	315	112.357	22.452	32.822	1.00	45.87	B	O
ATOM	6030	N	HIS	B	316	110.582	21.385	31.958	1.00	45.86	B	N
ATOM	6031	CA	HIS	B	316	111.257	20.100	31.862	1.00	45.81	B	C
ATOM	6032	CB	HIS	B	316	110.338	19.016	32.397	1.00	45.57	B	C
ATOM	6033	CG	HIS	B	316	109.631	19.406	33.648	1.00	45.55	B	C
ATOM	6034	CD2	HIS	B	316	108.425	19.986	33.843	1.00	47.00	B	C
ATOM	6035	ND1	HIS	B	316	110.191	19.250	34.897	1.00	47.29	B	N
ATOM	6036	CE1	HIS	B	316	109.358	19.715	35.809	1.00	48.39	B	C
ATOM	6037	NE2	HIS	B	316	108.278	20.169	35.196	1.00	47.67	B	N
ATOM	6038	C	HIS	B	316	111.673	19.745	30.444	1.00	46.68	B	C
ATOM	6039	O	HIS	B	316	110.976	19.012	29.732	1.00	45.89	B	O
ATOM	6040	N	PRO	B	317	112.811	20.284	30.004	1.00	47.98	B	N
ATOM	6041	CD	PRO	B	317	113.640	21.333	30.627	1.00	48.10	B	C
ATOM	6042	CA	PRO	B	317	113.275	19.970	28.651	1.00	47.06	B	C
ATOM	6043	CB	PRO	B	317	114.467	20.917	28.465	1.00	47.48	B	C
ATOM	6044	CG	PRO	B	317	114.934	21.182	29.872	1.00	48.78	B	C
ATOM	6045	C	PRO	B	317	113.647	18.488	28.533	1.00	47.51	B	C
ATOM	6046	O	PRO	B	317	113.678	17.948	27.436	1.00	47.55	B	O
ATOM	6047	N	GLU	B	318	113.917	17.841	29.666	1.00	48.27	B	N
ATOM	6048	CA	GLU	B	318	114.260	16.427	29.649	1.00	48.57	B	C
ATOM	6049	CB	GLU	B	318	114.574	15.915	31.060	1.00	52.43	B	C
ATOM	6050	CG	GLU	B	318	116.015	15.400	31.270	1.00	55.62	B	C
ATOM	6051	CD	GLU	B	318	117.001	16.520	31.611	1.00	58.79	B	C
ATOM	6052	OE1	GLU	B	318	117.211	17.418	30.745	1.00	59.93	B	O
ATOM	6053	OE2	GLU	B	318	117.559	16.497	32.743	1.00	58.56	B	O
ATOM	6054	C	GLU	B	318	113.081	15.636	29.085	1.00	48.02	B	C
ATOM	6055	O	GLU	B	318	113.252	14.711	28.286	1.00	49.76	B	O
ATOM	6056	N	VAL	B	319	111.875	16.014	29.499	1.00	46.13	B	N
ATOM	6057	CA	VAL	B	319	110.655	15.346	29.043	1.00	43.43	B	C
ATOM	6058	CB	VAL	B	319	109.436	15.819	29.811	1.00	42.09	B	C
ATOM	6059	CG1	VAL	B	319	108.228	15.014	29.371	1.00	42.42	B	C
ATOM	6060	CG2	VAL	B	319	109.684	15.694	31.283	1.00	42.28	B	C
ATOM	6061	C	VAL	B	319	110.358	15.620	27.577	1.00	43.25	B	C
ATOM	6062	O	VAL	B	319	109.911	14.737	26.837	1.00	43.49	B	O
ATOM	6063	N	THR	B	320	110.575	16.870	27.190	1.00	41.43	B	N
ATOM	6064	CA	THR	B	320	110.352	17.323	25.836	1.00	40.43	B	C
ATOM	6065	CB	THR	B	320	110.818	18.802	25.704	1.00	40.48	B	C
ATOM	6066	OG1	THR	B	320	110.006	19.631	26.539	1.00	41.79	B	O
ATOM	6067	CG2	THR	B	320	110.703	19.296	24.280	1.00	42.62	B	C
ATOM	6068	C	THR	B	320	111.118	16.419	24.865	1.00	40.64	B	C
ATOM	6069	O	THR	B	320	110.542	15.841	23.934	1.00	39.90	B	O
ATOM	6070	N	ALA	B	321	112.418	16.282	25.118	1.00	41.45	B	N
ATOM	6071	CA	ALA	B	321	113.315	15.452	24.301	1.00	39.93	B	C

Figure 3

ATOM	6072	CB	ALA	B	321	114.704	15.412	24.938	1.00	41.34	B	C
ATOM	6073	C	ALA	B	321	112.802	14.030	24.092	1.00	38.53	B	C
ATOM	6074	O	ALA	B	321	112.793	13.547	22.966	1.00	38.50	B	O
ATOM	6075	N	LYS	B	322	112.406	13.365	25.177	1.00	37.07	B	N
ATOM	6076	CA	LYS	B	322	111.886	12.023	25.077	1.00	35.90	B	C
ATOM	6077	CB	LYS	B	322	111.571	11.446	26.457	1.00	37.24	B	C
ATOM	6078	CG	LYS	B	322	112.791	11.153	27.350	1.00	40.85	B	C
ATOM	6079	CD	LYS	B	322	112.407	10.348	28.606	1.00	43.26	B	C
ATOM	6080	CE	LYS	B	322	113.542	10.267	29.626	1.00	44.61	B	C
ATOM	6081	NZ	LYS	B	322	113.144	9.532	30.864	1.00	46.77	B	N
ATOM	6082	C	LYS	B	322	110.633	12.068	24.221	1.00	34.59	B	C
ATOM	6083	O	LYS	B	322	110.555	11.376	23.215	1.00	35.31	B	O
ATOM	6084	N	VAL	B	323	109.654	12.891	24.584	1.00	33.80	B	N
ATOM	6085	CA	VAL	B	323	108.445	12.966	23.770	1.00	32.64	B	C
ATOM	6086	CB	VAL	B	323	107.489	14.094	24.201	1.00	31.01	B	C
ATOM	6087	CG1	VAL	B	323	106.296	14.124	23.256	1.00	28.67	B	C
ATOM	6088	CG2	VAL	B	323	107.010	13.870	25.630	1.00	31.27	B	C
ATOM	6089	C	VAL	B	323	108.797	13.200	22.303	1.00	33.77	B	C
ATOM	6090	O	VAL	B	323	108.157	12.628	21.434	1.00	33.70	B	O
ATOM	6091	N	GLN	B	324	109.789	14.035	22.007	1.00	36.25	B	N
ATOM	6092	CA	GLN	B	324	110.132	14.253	20.610	1.00	38.23	B	C
ATOM	6093	CB	GLN	B	324	111.050	15.458	20.458	1.00	39.04	B	C
ATOM	6094	CG	GLN	B	324	110.275	16.758	20.447	1.00	40.83	B	C
ATOM	6095	CD	GLN	B	324	111.110	17.954	20.058	1.00	41.94	B	C
ATOM	6096	OE1	GLN	B	324	110.608	18.883	19.430	1.00	41.29	B	O
ATOM	6097	NE2	GLN	B	324	112.388	17.949	20.445	1.00	42.60	B	N
ATOM	6098	C	GLN	B	324	110.746	13.030	19.964	1.00	40.23	B	C
ATOM	6099	O	GLN	B	324	110.462	12.735	18.805	1.00	40.01	B	O
ATOM	6100	N	GLU	B	325	111.591	12.317	20.710	1.00	43.24	B	N
ATOM	6101	CA	GLU	B	325	112.220	11.090	20.199	1.00	46.06	B	C
ATOM	6102	CB	GLU	B	325	113.083	10.403	21.280	1.00	49.42	B	C
ATOM	6103	CG	GLU	B	325	114.351	11.153	21.741	1.00	55.36	B	C
ATOM	6104	CD	GLU	B	325	114.992	10.562	23.036	1.00	58.90	B	C
ATOM	6105	OE1	GLU	B	325	116.020	11.124	23.504	1.00	60.38	B	O
ATOM	6106	OE2	GLU	B	325	114.474	9.550	23.584	1.00	59.04	B	O
ATOM	6107	C	GLU	B	325	111.094	10.133	19.788	1.00	45.72	B	C
ATOM	6108	O	GLU	B	325	111.125	9.566	18.689	1.00	46.02	B	O
ATOM	6109	N	GLU	B	326	110.106	9.979	20.677	1.00	44.89	B	N
ATOM	6110	CA	GLU	B	326	108.958	9.105	20.451	1.00	43.50	B	C
ATOM	6111	CB	GLU	B	326	107.959	9.219	21.621	1.00	43.40	B	C
ATOM	6112	CG	GLU	B	326	106.832	8.176	21.650	1.00	45.19	B	C
ATOM	6113	CD	GLU	B	326	106.877	7.271	22.884	1.00	48.03	B	C
ATOM	6114	OE1	GLU	B	326	107.857	6.504	23.039	1.00	50.38	B	O
ATOM	6115	OE2	GLU	B	326	105.937	7.317	23.713	1.00	48.48	B	O
ATOM	6116	C	GLU	B	326	108.287	9.481	19.138	1.00	42.87	B	C
ATOM	6117	O	GLU	B	326	107.916	8.608	18.349	1.00	43.29	B	O
ATOM	6118	N	ILE	B	327	108.140	10.774	18.875	1.00	42.42	B	N
ATOM	6119	CA	ILE	B	327	107.508	11.165	17.616	1.00	41.33	B	C
ATOM	6120	CB	ILE	B	327	107.203	12.679	17.556	1.00	40.36	B	C
ATOM	6121	CG2	ILE	B	327	106.500	12.998	16.254	1.00	39.21	B	C
ATOM	6122	CG1	ILE	B	327	106.311	13.078	18.748	1.00	39.36	B	C
ATOM	6123	CD1	ILE	B	327	106.040	14.565	18.868	1.00	36.49	B	C
ATOM	6124	C	ILE	B	327	108.423	10.788	16.455	1.00	41.97	B	C
ATOM	6125	O	ILE	B	327	107.998	10.088	15.544	1.00	41.93	B	O
ATOM	6126	N	GLU	B	328	109.677	11.235	16.500	1.00	42.25	B	N
ATOM	6127	CA	GLU	B	328	110.656	10.922	15.454	1.00	45.01	B	C
ATOM	6128	CB	GLU	B	328	112.072	11.274	15.924	1.00	48.44	B	C
ATOM	6129	CG	GLU	B	328	112.595	12.618	15.453	1.00	55.87	B	C
ATOM	6130	CD	GLU	B	328	112.824	12.651	13.953	1.00	61.01	B	C
ATOM	6131	OE1	GLU	B	328	113.363	13.682	13.451	1.00	64.29	B	O
ATOM	6132	OE2	GLU	B	328	112.467	11.650	13.271	1.00	61.47	B	O
ATOM	6133	C	GLU	B	328	110.623	9.441	15.084	1.00	43.86	B	C
ATOM	6134	O	GLU	B	328	110.524	9.078	13.914	1.00	44.24	B	O
ATOM	6135	N	ARG	B	329	110.705	8.587	16.096	1.00	43.24	B	N
ATOM	6136	CA	ARG	B	329	110.706	7.143	15.892	1.00	42.88	B	C
ATOM	6137	CB	ARG	B	329	111.080	6.444	17.209	1.00	43.61	B	C
ATOM	6138	CG	ARG	B	329	111.176	4.919	17.141	1.00	43.94	B	C
ATOM	6139	CD	ARG	B	329	111.784	4.351	18.421	1.00	44.33	B	C
ATOM	6140	NE	ARG	B	329	110.883	4.448	19.570	1.00	45.26	B	N
ATOM	6141	CZ	ARG	B	329	109.698	3.843	19.648	1.00	46.89	B	C
ATOM	6142	NH1	ARG	B	329	108.944	3.980	20.740	1.00	45.83	B	N
ATOM	6143	NH2	ARG	B	329	109.271	3.099	18.629	1.00	46.09	B	N
ATOM	6144	C	ARG	B	329	109.398	6.567	15.355	1.00	42.14	B	C
ATOM	6145	O	ARG	B	329	109.421	5.681	14.500	1.00	43.05	B	O
ATOM	6146	N	VAL	B	330	108.264	7.074	15.840	1.00	42.36	B	N

Figure 3

ATOM	6147	CA	VAL	B	330	106.950	6.561	15.425	1.00	41.94	B	C
ATOM	6148	CB	VAL	B	330	105.933	6.580	16.572	1.00	40.17	B	C
ATOM	6149	CG1	VAL	B	330	104.639	5.926	16.114	1.00	38.75	B	C
ATOM	6150	CG2	VAL	B	330	106.492	5.881	17.774	1.00	39.68	B	C
ATOM	6151	C	VAL	B	330	106.250	7.246	14.264	1.00	43.49	B	C
ATOM	6152	O	VAL	B	330	105.592	6.591	13.448	1.00	44.61	B	O
ATOM	6153	N	ILE	B	331	106.350	8.563	14.211	1.00	43.88	B	N
ATOM	6154	CA	ILE	B	331	105.704	9.336	13.162	1.00	44.17	B	C
ATOM	6155	CB	ILE	B	331	104.613	10.268	13.791	1.00	40.75	B	C
ATOM	6156	CG2	ILE	B	331	103.820	10.964	12.709	1.00	43.00	B	C
ATOM	6157	CG1	ILE	B	331	103.639	9.442	14.623	1.00	36.78	B	C
ATOM	6158	CD1	ILE	B	331	102.749	10.243	15.520	1.00	31.22	B	C
ATOM	6159	C	ILE	B	331	106.022	10.155	12.528	1.00	46.37	B	C
ATOM	6160	O	ILE	B	331	107.464	10.947	13.201	1.00	48.30	B	O
ATOM	6161	N	GLY	B	332	107.081	9.957	11.248	1.00	48.54	B	N
ATOM	6162	CA	GLY	B	332	108.154	10.722	10.638	1.00	53.22	B	C
ATOM	6163	C	GLY	B	332	107.902	12.222	10.631	1.00	56.20	B	C
ATOM	6164	O	GLY	B	332	106.822	12.670	11.013	1.00	56.08	B	O
ATOM	6165	N	ARG	B	333	108.895	13.007	10.213	1.00	59.38	B	N
ATOM	6166	CA	ARG	B	333	108.714	14.453	10.141	1.00	61.62	B	C
ATOM	6167	CB	ARG	B	333	110.062	15.193	10.120	1.00	64.51	B	C
ATOM	6168	CG	ARG	B	333	110.394	15.912	11.433	1.00	69.62	B	C
ATOM	6169	CD	ARG	B	333	111.600	16.856	11.308	1.00	75.15	B	C
ATOM	6170	NE	ARG	B	333	112.922	16.205	11.349	1.00	80.35	B	N
ATOM	6171	CZ	ARG	B	333	113.572	15.718	10.290	1.00	82.75	B	C
ATOM	6172	NH1	ARG	B	333	113.025	15.789	9.082	1.00	83.49	B	N
ATOM	6173	NH2	ARG	B	333	114.791	15.206	10.437	1.00	84.43	B	N
ATOM	6174	C	ARG	B	333	107.922	14.767	8.874	1.00	61.80	B	C
ATOM	6175	O	ARG	B	333	107.859	15.914	8.433	1.00	62.72	B	O
ATOM	6176	N	ASN	B	334	107.319	13.730	8.297	1.00	61.66	B	N
ATOM	6177	CA	ASN	B	334	106.513	13.877	7.099	1.00	61.88	B	C
ATOM	6178	CB	ASN	B	334	106.849	12.764	6.093	1.00	62.61	B	C
ATOM	6179	CG	ASN	B	334	108.163	13.031	5.344	1.00	63.77	B	C
ATOM	6180	OD1	ASN	B	334	109.185	13.374	5.952	1.00	62.52	B	O
ATOM	6181	ND2	ASN	B	334	108.136	12.876	4.020	1.00	64.68	B	N
ATOM	6182	C	ASN	B	334	105.023	13.889	7.444	1.00	60.68	B	C
ATOM	6183	O	ASN	B	334	104.472	14.959	7.726	1.00	62.79	B	O
ATOM	6184	N	ARG	B	335	104.370	12.725	7.461	1.00	58.13	B	N
ATOM	6185	CA	ARG	B	335	102.920	12.660	7.752	1.00	54.45	B	C
ATOM	6186	CB	ARG	B	335	102.441	11.209	7.768	1.00	53.78	B	C
ATOM	6187	CG	ARG	B	335	102.590	10.506	9.115	1.00	53.57	B	C
ATOM	6188	CD	ARG	B	335	101.525	9.417	9.262	1.00	53.99	B	C
ATOM	6189	NE	ARG	B	335	101.557	8.693	10.538	1.00	54.75	B	N
ATOM	6190	CZ	ARG	B	335	102.440	7.750	10.860	1.00	56.49	B	C
ATOM	6191	NH1	ARG	B	335	103.396	7.390	10.013	1.00	57.63	B	N
ATOM	6192	NH2	ARG	B	335	102.347	7.140	12.026	1.00	56.10	B	N
ATOM	6193	C	ARG	B	335	102.464	13.331	9.053	1.00	53.69	B	C
ATOM	6194	O	ARG	B	335	103.272	13.692	9.907	1.00	53.82	B	O
ATOM	6195	N	SER	B	336	101.149	13.489	9.198	1.00	50.08	B	N
ATOM	6196	CA	SER	B	336	100.576	14.110	10.395	1.00	46.69	B	C
ATOM	6197	CB	SER	B	336	99.387	15.025	10.025	1.00	47.66	B	C
ATOM	6198	OG	SER	B	336	98.927	14.804	8.697	1.00	46.97	B	O
ATOM	6199	C	SER	B	336	100.122	13.077	11.425	1.00	43.96	B	C
ATOM	6200	O	SER	B	336	99.541	12.041	11.080	1.00	43.25	B	O
ATOM	6201	N	PRO	B	337	100.367	13.360	12.712	1.00	40.68	B	N
ATOM	6202	CD	PRO	B	337	100.946	14.580	13.296	1.00	38.37	B	C
ATOM	6203	CA	PRO	B	337	99.966	12.422	13.760	1.00	37.15	B	C
ATOM	6204	CB	PRO	B	337	100.279	13.184	15.039	1.00	36.50	B	C
ATOM	6205	CG	PRO	B	337	101.410	14.079	14.640	1.00	37.61	B	C
ATOM	6206	C	PRO	B	337	98.497	12.055	13.653	1.00	37.46	B	C
ATOM	6207	O	PRO	B	337	97.686	12.814	13.120	1.00	38.01	B	O
ATOM	6208	N	CYS	B	338	98.165	10.877	14.162	1.00	36.90	B	N
ATOM	6209	CA	CYS	B	338	96.795	10.398	14.155	1.00	37.92	B	C
ATOM	6210	CB	CYS	B	338	96.514	9.528	12.937	1.00	40.62	B	C
ATOM	6211	SG	CYS	B	338	96.791	7.768	13.250	1.00	46.61	B	S
ATOM	6212	C	CYS	B	338	96.631	9.558	15.404	1.00	37.37	B	C
ATOM	6213	O	CYS	B	338	97.607	9.039	15.958	1.00	35.85	B	O
ATOM	6214	N	MET	B	339	95.385	9.421	15.830	1.00	37.63	B	N
ATOM	6215	CA	MET	B	339	95.061	8.671	17.026	1.00	38.05	B	C
ATOM	6216	CB	MET	B	339	93.548	8.548	17.164	1.00	36.86	B	C
ATOM	6217	CG	MET	B	339	92.932	9.780	17.758	1.00	35.00	B	C
ATOM	6218	SD	MET	B	339	94.132	10.658	18.787	1.00	35.24	B	S
ATOM	6219	CE	MET	B	339	93.935	9.745	20.398	1.00	32.88	B	C
ATOM	6220	C	MET	B	339	95.691	7.293	17.136	1.00	40.12	B	C
ATOM	6221	O	MET	B	339	96.130	6.876	18.214	1.00	40.08	B	O

Figure 3

ATOM	6222	N	GLN	B	340	95.716	6.575	16.023	1.00	42.67	B	N
ATOM	6223	CA	GLN	B	340	96.284	5.250	16.031	1.00	44.01	B	C
ATOM	6224	CB	GLN	B	340	96.220	4.645	14.631	1.00	47.22	B	C
ATOM	6225	CG	GLN	B	340	94.975	3.811	14.340	1.00	52.42	B	C
ATOM	6226	CD	GLN	B	340	95.020	3.218	12.928	1.00	56.61	B	C
ATOM	6227	OE1	GLN	B	340	96.046	2.650	12.518	1.00	57.82	B	O
ATOM	6228	NE2	GLN	B	340	93.912	3.347	12.177	1.00	59.25	B	N
ATOM	6229	C	GLN	B	340	97.722	5.254	16.544	1.00	42.79	B	C
ATOM	6230	O	GLN	B	340	98.136	4.303	17.189	1.00	42.67	B	O
ATOM	6231	N	ASP	B	341	98.472	6.324	16.303	1.00	41.47	B	N
ATOM	6232	CA	ASP	B	341	99.857	6.360	16.747	1.00	42.00	B	C
ATOM	6233	CB	ASP	B	341	100.629	7.423	15.986	1.00	44.99	B	C
ATOM	6234	CG	ASP	B	341	100.654	7.149	14.513	1.00	50.47	B	C
ATOM	6235	OD1	ASP	B	341	100.918	5.971	14.138	1.00	53.34	B	O
ATOM	6236	OD2	ASP	B	341	100.409	8.092	13.715	1.00	53.99	B	O
ATOM	6237	C	ASP	B	341	100.078	6.565	18.229	1.00	41.24	B	C
ATOM	6238	O	ASP	B	341	101.215	6.597	18.692	1.00	39.19	B	O
ATOM	6239	N	ARG	B	342	98.993	6.697	18.970	1.00	41.64	B	N
ATOM	6240	CA	ARG	B	342	99.103	6.916	20.389	1.00	42.50	B	C
ATOM	6241	CB	ARG	B	342	97.791	7.463	20.949	1.00	40.83	B	C
ATOM	6242	CG	ARG	B	342	97.829	7.674	22.451	1.00	38.16	B	C
ATOM	6243	CD	ARG	B	342	96.726	8.569	22.945	1.00	37.30	B	C
ATOM	6244	NE	ARG	B	342	95.404	7.971	22.930	1.00	37.41	B	N
ATOM	6245	CZ	ARG	B	342	94.379	8.478	23.608	1.00	40.06	B	C
ATOM	6246	NH1	ARG	B	342	94.542	9.570	24.348	1.00	41.00	B	N
ATOM	6247	NH2	ARG	B	342	93.183	7.916	23.532	1.00	40.86	B	N
ATOM	6248	C	ARG	B	342	99.504	5.658	21.145	1.00	44.23	B	C
ATOM	6249	O	ARG	B	342	100.470	5.674	21.924	1.00	46.23	B	O
ATOM	6250	N	SER	B	343	98.779	4.561	20.929	1.00	44.73	B	N
ATOM	6251	CA	SER	B	343	99.098	3.318	21.639	1.00	44.01	B	C
ATOM	6252	CB	SER	B	343	98.148	2.171	21.230	1.00	46.22	B	C
ATOM	6253	OG	SER	B	343	98.272	1.803	19.866	1.00	49.74	B	O
ATOM	6254	C	SER	B	343	100.554	2.910	21.442	1.00	42.25	B	C
ATOM	6255	O	SER	B	343	101.096	2.150	22.242	1.00	43.04	B	O
ATOM	6256	N	HIS	B	344	101.198	3.436	20.404	1.00	40.88	B	N
ATOM	6257	CA	HIS	B	344	102.602	3.114	20.153	1.00	40.84	B	C
ATOM	6258	CB	HIS	B	344	102.871	2.994	18.648	1.00	45.39	B	C
ATOM	6259	CG	HIS	B	344	102.104	1.893	17.978	1.00	50.18	B	C
ATOM	6260	CD2	HIS	B	344	101.018	1.927	17.167	1.00	52.89	B	C
ATOM	6261	ND1	HIS	B	344	102.422	0.561	18.136	1.00	53.75	B	N
ATOM	6262	CE1	HIS	B	344	101.564	-0.177	17.452	1.00	55.29	B	C
ATOM	6263	NE2	HIS	B	344	100.700	0.627	16.855	1.00	54.35	B	N
ATOM	6264	C	HIS	B	344	103.537	4.174	20.736	1.00	38.92	B	C
ATOM	6265	O	HIS	B	344	104.733	4.180	20.454	1.00	38.05	B	O
ATOM	6266	N	MET	B	345	102.992	5.078	21.536	1.00	36.77	B	N
ATOM	6267	CA	MET	B	345	103.793	6.130	22.142	1.00	35.23	B	C
ATOM	6268	CB	MET	B	345	103.514	7.455	21.463	1.00	33.70	B	C
ATOM	6269	CG	MET	B	345	103.854	7.418	20.008	1.00	32.71	B	C
ATOM	6270	SD	MET	B	345	103.139	8.763	19.094	1.00	30.40	B	S
ATOM	6271	CE	MET	B	345	104.504	9.912	19.106	1.00	27.79	B	C
ATOM	6272	C	MET	B	345	103.433	6.217	23.606	1.00	36.78	B	C
ATOM	6273	O	MET	B	345	102.735	7.126	24.041	1.00	37.96	B	O
ATOM	6274	N	PRO	B	346	103.940	5.281	24.401	1.00	36.38	B	N
ATOM	6275	CD	PRO	B	346	104.861	4.188	24.067	1.00	36.44	B	C
ATOM	6276	CA	PRO	B	346	103.632	5.280	25.824	1.00	33.50	B	C
ATOM	6277	CB	PRO	B	346	104.323	4.020	26.326	1.00	35.76	B	C
ATOM	6278	CG	PRO	B	346	104.450	3.160	25.080	1.00	37.27	B	C
ATOM	6279	C	PRO	B	346	104.081	6.515	26.575	1.00	32.61	B	C
ATOM	6280	O	PRO	B	346	103.307	7.094	27.343	1.00	33.29	B	O
ATOM	6281	N	TYR	B	347	105.328	6.917	26.370	1.00	30.27	B	N
ATOM	6282	CA	TYR	B	347	105.836	8.083	27.070	1.00	28.67	B	C
ATOM	6283	CB	TYR	B	347	107.213	8.458	26.534	1.00	28.48	B	C
ATOM	6284	CG	TYR	B	347	107.926	9.395	27.454	1.00	27.88	B	C
ATOM	6285	CD1	TYR	B	347	108.179	9.032	28.766	1.00	27.34	B	C
ATOM	6286	CE1	TYR	B	347	108.761	9.911	29.648	1.00	27.49	B	C
ATOM	6287	CD2	TYR	B	347	108.281	10.666	27.041	1.00	29.48	B	C
ATOM	6288	CE2	TYR	B	347	108.863	11.558	27.918	1.00	29.54	B	C
ATOM	6289	CZ	TYR	B	347	109.098	11.176	29.222	1.00	28.72	B	C
ATOM	6290	OH	TYR	B	347	109.640	12.083	30.102	1.00	30.73	B	O
ATOM	6291	C	TYR	B	347	104.868	9.229	26.857	1.00	27.88	B	C
ATOM	6292	O	TYR	B	347	104.233	9.711	27.792	1.00	27.39	B	O
ATOM	6293	N	THR	B	348	104.748	9.646	25.608	1.00	26.92	B	N
ATOM	6294	CA	THR	B	348	103.855	10.727	25.272	1.00	26.62	B	C
ATOM	6295	CB	THR	B	348	103.716	10.807	23.793	1.00	27.60	B	C
ATOM	6296	OG1	THR	B	348	105.008	11.089	23.232	1.00	29.10	B	O

Figure 3

ATOM	6297	CG2	THR	B	348	102.751	11.899	23.429	1.00	27.60	B	C
ATOM	6298	C	THR	B	348	102.478	10.645	25.915	1.00	26.05	B	C
ATOM	6299	O	THR	B	348	102.052	11.575	26.610	1.00	26.31	B	O
ATOM	6300	N	ASP	B	349	101.774	9.548	25.690	1.00	25.61	B	N
ATOM	6301	CA	ASP	B	349	100.470	9.416	26.293	1.00	25.56	B	C
ATOM	6302	CB	ASP	B	349	99.898	8.027	26.044	1.00	25.01	B	C
ATOM	6303	CG	ASP	B	349	98.498	7.891	26.568	1.00	28.16	B	C
ATOM	6304	OD1	ASP	B	349	98.326	8.121	27.777	1.00	32.44	B	O
ATOM	6305	OD2	ASP	B	349	97.566	7.559	25.800	1.00	28.05	B	O
ATOM	6306	C	ASP	B	349	100.600	9.688	27.788	1.00	26.34	B	C
ATOM	6307	O	ASP	B	349	99.683	10.231	28.410	1.00	27.40	B	O
ATOM	6308	N	ALA	B	350	101.735	9.332	28.380	1.00	26.49	B	N
ATOM	6309	CA	ALA	B	350	101.917	9.590	29.814	1.00	25.78	B	C
ATOM	6310	CB	ALA	B	350	103.152	8.877	30.321	1.00	28.12	B	C
ATOM	6311	C	ALA	B	350	102.041	11.090	30.076	1.00	25.64	B	C
ATOM	6312	O	ALA	B	350	101.398	11.620	30.977	1.00	24.89	B	O
ATOM	6313	N	VAL	B	351	102.867	11.765	29.282	1.00	22.52	B	N
ATOM	6314	CA	VAL	B	351	103.029	13.185	29.461	1.00	19.54	B	C
ATOM	6315	CB	VAL	B	351	103.923	13.762	28.389	1.00	20.03	B	C
ATOM	6316	CG1	VAL	B	351	103.909	15.281	28.463	1.00	20.69	B	C
ATOM	6317	CG2	VAL	B	351	105.335	13.223	28.581	1.00	20.22	B	C
ATOM	6318	C	VAL	B	351	101.668	13.864	29.446	1.00	20.13	B	C
ATOM	6319	O	VAL	B	351	101.287	14.550	30.400	1.00	19.84	B	O
ATOM	6320	N	VAL	B	352	100.912	13.649	28.379	1.00	18.45	B	N
ATOM	6321	CA	VAL	B	352	99.580	14.241	28.293	1.00	16.77	B	C
ATOM	6322	CB	VAL	B	352	98.775	13.658	27.139	1.00	16.46	B	C
ATOM	6323	CG1	VAL	B	352	97.373	14.243	27.165	1.00	16.11	B	C
ATOM	6324	CG2	VAL	B	352	99.469	13.937	25.843	1.00	15.69	B	C
ATOM	6325	C	VAL	B	352	98.766	13.996	29.576	1.00	18.89	B	C
ATOM	6326	O	VAL	B	352	98.166	14.920	30.129	1.00	19.47	B	O
ATOM	6327	N	HIS	B	353	98.738	12.748	30.037	1.00	18.61	B	N
ATOM	6328	CA	HIS	B	353	97.993	12.423	31.240	1.00	17.43	B	C
ATOM	6329	CB	HIS	B	353	98.015	10.924	31.503	1.00	18.54	B	C
ATOM	6330	CG	HIS	B	353	97.089	10.131	30.640	1.00	19.57	B	C
ATOM	6331	CD2	HIS	B	353	97.030	9.973	29.299	1.00	20.71	B	C
ATOM	6332	ND1	HIS	B	353	96.107	9.315	31.163	1.00	20.06	B	N
ATOM	6333	CE1	HIS	B	353	95.487	8.686	30.184	1.00	20.84	B	C
ATOM	6334	NE2	HIS	B	353	96.030	9.068	29.039	1.00	21.67	B	N
ATOM	6335	C	HIS	B	353	98.561	13.142	32.454	1.00	19.21	B	C
ATOM	6336	O	HIS	B	353	97.823	13.773	33.204	1.00	17.74	B	O
ATOM	6337	N	GLU	B	354	99.868	13.028	32.652	1.00	20.08	B	N
ATOM	6338	CA	GLU	B	354	100.535	13.676	33.765	1.00	21.64	B	C
ATOM	6339	CB	GLU	B	354	102.053	13.453	33.683	1.00	21.65	B	C
ATOM	6340	CG	GLU	B	354	102.882	14.046	34.835	1.00	21.96	B	C
ATOM	6341	CD	GLU	B	354	102.383	13.654	36.223	1.00	25.18	B	C
ATOM	6342	OE1	GLU	B	354	101.239	13.135	36.312	1.00	25.01	B	O
ATOM	6343	OE2	GLU	B	354	103.116	13.878	37.245	1.00	24.77	B	O
ATOM	6344	C	GLU	B	354	100.201	15.159	33.740	1.00	23.39	B	C
ATOM	6345	O	GLU	B	354	99.947	15.746	34.780	1.00	25.50	B	O
ATOM	6346	N	VAL	B	355	100.181	15.772	32.562	1.00	22.72	B	N
ATOM	6347	CA	VAL	B	355	99.834	17.184	32.502	1.00	21.11	B	C
ATOM	6348	CB	VAL	B	355	99.892	17.723	31.080	1.00	21.76	B	C
ATOM	6349	CG1	VAL	B	355	99.114	19.026	30.969	1.00	22.19	B	C
ATOM	6350	CG2	VAL	B	355	101.332	17.932	30.703	1.00	22.72	B	C
ATOM	6351	C	VAL	B	355	98.432	17.378	33.067	1.00	21.67	B	C
ATOM	6352	O	VAL	B	355	98.231	18.220	33.923	1.00	22.83	B	O
ATOM	6353	N	GLN	B	356	97.466	16.587	32.622	1.00	20.18	B	N
ATOM	6354	CA	GLN	B	356	96.134	16.735	33.150	1.00	18.80	B	C
ATOM	6355	CB	GLN	B	356	95.179	15.792	32.449	1.00	18.52	B	C
ATOM	6356	CG	GLN	B	356	94.844	16.277	31.090	1.00	20.04	B	C
ATOM	6357	CD	GLN	B	356	93.867	15.401	30.346	1.00	22.08	B	C
ATOM	6358	OE1	GLN	B	356	94.254	14.437	29.679	1.00	22.27	B	O
ATOM	6359	NE2	GLN	B	356	92.584	15.727	30.459	1.00	21.73	B	N
ATOM	6360	C	GLN	B	356	96.069	16.515	34.649	1.00	18.78	B	C
ATOM	6361	O	GLN	B	356	95.506	17.329	35.360	1.00	20.56	B	O
ATOM	6362	N	ARG	B	357	96.666	15.443	35.152	1.00	20.09	B	N
ATOM	6363	CA	ARG	B	357	96.602	15.172	36.590	1.00	19.73	B	C
ATOM	6364	CB	ARG	B	357	97.221	13.819	36.903	1.00	19.64	B	C
ATOM	6365	CG	ARG	B	357	97.095	13.410	38.355	1.00	19.66	B	C
ATOM	6366	CD	ARG	B	357	98.197	12.442	38.710	1.00	18.65	B	C
ATOM	6367	NE	ARG	B	357	99.459	13.137	38.594	1.00	19.20	B	N
ATOM	6368	CZ	ARG	B	357	99.951	13.919	39.544	1.00	21.64	B	C
ATOM	6369	NH1	ARG	B	357	101.115	14.546	39.358	1.00	22.89	B	N
ATOM	6370	NH2	ARG	B	357	99.295	14.040	40.696	1.00	19.95	B	N
ATOM	6371	C	ARG	B	357	97.275	16.205	37.483	1.00	21.42	B	C

Figure 3

ATOM	6372	O	ARG	B	357	96.735	16.588	38.513	1.00	21.18	B	O
ATOM	6373	N	TYR	B	358	98.468	16.628	37.108	1.00	22.29	B	N
ATOM	6374	CA	TYR	B	358	99.184	17.591	37.909	1.00	24.34	B	C
ATOM	6375	CB	TYR	B	358	100.525	17.887	37.295	1.00	25.29	B	C
ATOM	6376	CG	TYR	B	358	101.232	19.073	37.900	1.00	27.17	B	C
ATOM	6377	CD1	TYR	B	358	101.255	20.307	37.249	1.00	28.53	B	C
ATOM	6378	CE1	TYR	B	358	102.047	21.343	37.719	1.00	28.98	B	C
ATOM	6379	CD2	TYR	B	358	101.998	18.918	39.053	1.00	28.26	B	C
ATOM	6380	CE2	TYR	B	358	102.795	19.946	39.535	1.00	28.43	B	C
ATOM	6381	CZ	TYR	B	358	102.828	21.152	38.856	1.00	29.15	B	C
ATOM	6382	OH	TYR	B	358	103.716	22.133	39.243	1.00	29.63	B	O
ATOM	6383	C	TYR	B	358	98.504	18.910	38.099	1.00	25.55	B	C
ATOM	6384	O	TYR	B	358	98.390	19.407	39.223	1.00	25.62	B	O
ATOM	6385	N	ILE	B	359	98.083	19.509	36.996	1.00	24.64	B	N
ATOM	6386	CA	ILE	B	359	97.471	20.821	37.082	1.00	25.41	B	C
ATOM	6387	CB	ILE	B	359	97.471	21.526	35.733	1.00	22.79	B	C
ATOM	6388	CG2	ILE	B	359	98.779	21.250	35.030	1.00	23.04	B	C
ATOM	6389	CG1	ILE	B	359	96.323	21.063	34.875	1.00	20.61	B	C
ATOM	6390	CD1	ILE	B	359	96.393	21.620	33.479	1.00	18.60	B	C
ATOM	6391	C	ILE	B	359	96.083	20.827	37.662	1.00	27.76	B	C
ATOM	6392	O	ILE	B	359	95.675	21.795	38.299	1.00	29.12	B	O
ATOM	6393	N	ASP	B	360	95.338	19.761	37.449	1.00	27.84	B	N
ATOM	6394	CA	ASP	B	360	94.022	19.724	38.042	1.00	29.50	B	C
ATOM	6395	CB	ASP	B	360	94.133	19.555	39.545	1.00	31.21	B	C
ATOM	6396	CG	ASP	B	360	92.799	19.472	40.182	1.00	35.40	B	C
ATOM	6397	OD1	ASP	B	360	92.723	19.539	41.444	1.00	33.66	B	O
ATOM	6398	OD2	ASP	B	360	91.818	19.332	39.388	1.00	38.10	B	O
ATOM	6399	C	ASP	B	360	93.193	20.961	37.790	1.00	27.99	B	C
ATOM	6400	O	ASP	B	360	93.007	21.791	38.681	1.00	28.65	B	O
ATOM	6401	N	LEU	B	361	92.644	21.061	36.598	1.00	29.67	B	N
ATOM	6402	CA	LEU	B	361	91.837	22.221	36.261	1.00	29.28	B	C
ATOM	6403	CB	LEU	B	361	91.571	22.204	34.773	1.00	27.03	B	C
ATOM	6404	CG	LEU	B	361	92.491	23.160	34.021	1.00	27.15	B	C
ATOM	6405	CD1	LEU	B	361	93.918	23.120	34.525	1.00	25.92	B	C
ATOM	6406	CD2	LEU	B	361	92.409	22.785	32.571	1.00	28.75	B	C
ATOM	6407	C	LEU	B	361	90.528	22.431	37.021	1.00	29.93	B	C
ATOM	6408	O	LEU	B	361	90.150	23.566	37.294	1.00	30.77	B	O
ATOM	6409	N	LEU	B	362	89.838	21.353	37.364	1.00	29.09	B	N
ATOM	6410	CA	LEU	B	362	88.587	21.508	38.073	1.00	27.39	B	C
ATOM	6411	CB	LEU	B	362	87.450	20.960	37.221	1.00	23.92	B	C
ATOM	6412	CG	LEU	B	362	87.488	21.643	35.850	1.00	23.09	B	C
ATOM	6413	CD1	LEU	B	362	86.387	21.131	34.958	1.00	21.33	B	C
ATOM	6414	CD2	LEU	B	362	87.356	23.134	36.030	1.00	23.43	B	C
ATOM	6415	C	LEU	B	362	88.662	20.807	39.417	1.00	30.19	B	C
ATOM	6416	O	LEU	B	362	88.076	19.746	39.608	1.00	31.38	B	O
ATOM	6417	N	PRO	B	363	89.370	21.415	40.382	1.00	30.58	B	N
ATOM	6418	CD	PRO	B	363	89.860	22.800	40.349	1.00	30.75	B	C
ATOM	6419	CA	PRO	B	363	89.545	20.854	41.723	1.00	30.29	B	C
ATOM	6420	CB	PRO	B	363	89.911	22.068	42.547	1.00	31.22	B	C
ATOM	6421	CG	PRO	B	363	90.725	22.851	41.603	1.00	30.67	B	C
ATOM	6422	C	PRO	B	363	88.324	20.132	42.240	1.00	31.69	B	C
ATOM	6423	O	PRO	B	363	88.420	19.134	42.958	1.00	33.71	B	O
ATOM	6424	N	THR	B	364	87.167	20.668	41.904	1.00	32.43	B	N
ATOM	6425	CA	THR	B	364	85.901	20.064	42.276	1.00	32.78	B	C
ATOM	6426	CB	THR	B	364	85.089	20.974	43.174	1.00	33.76	B	C
ATOM	6427	OG1	THR	B	364	84.362	21.908	42.378	1.00	35.03	B	O
ATOM	6428	CG2	THR	B	364	86.001	21.729	44.115	1.00	32.31	B	C
ATOM	6429	C	THR	B	364	85.371	20.124	40.882	1.00	33.82	B	C
ATOM	6430	O	THR	B	364	85.582	21.127	40.196	1.00	37.27	B	O
ATOM	6431	N	SER	B	365	84.722	19.076	40.417	1.00	34.56	B	N
ATOM	6432	CA	SER	B	365	84.275	19.130	39.036	1.00	33.37	B	C
ATOM	6433	CB	SER	B	365	83.687	17.791	38.601	1.00	34.02	B	C
ATOM	6434	OG	SER	B	365	82.600	17.419	39.423	1.00	37.89	B	O
ATOM	6435	C	SER	B	365	83.237	20.205	38.883	1.00	32.14	B	C
ATOM	6436	O	SER	B	365	83.535	21.386	38.697	1.00	32.78	B	O
ATOM	6437	N	LEU	B	366	82.001	19.765	38.935	1.00	31.62	B	N
ATOM	6438	CA	LEU	B	366	80.917	20.663	38.812	1.00	30.94	B	C
ATOM	6439	CB	LEU	B	366	80.318	20.578	37.431	1.00	29.91	B	C
ATOM	6440	CG	LEU	B	366	80.471	21.894	36.652	1.00	29.47	B	C
ATOM	6441	CD1	LEU	B	366	81.929	22.176	36.373	1.00	28.90	B	C
ATOM	6442	CD2	LEU	B	366	79.695	21.803	35.346	1.00	28.22	B	C
ATOM	6443	C	LEU	B	366	79.943	20.219	39.856	1.00	32.79	B	C
ATOM	6444	O	LEU	B	366	79.870	19.054	40.216	1.00	33.64	B	O
ATOM	6445	N	PRO	B	367	79.184	21.160	40.383	1.00	33.65	B	N
ATOM	6446	CD	PRO	B	367	79.204	22.611	40.136	1.00	34.99	B	C

Figure 3

ATOM	6447	CA	PRO	B	367	78.217	20.805	41.410	1.00	34.24	B	C
ATOM	6448	CB	PRO	B	367	77.473	22.111	41.617	1.00	35.24	B	C
ATOM	6449	CG	PRO	B	367	78.581	23.148	41.400	1.00	36.37	B	C
ATOM	6450	C	PRO	B	367	77.324	19.652	40.970	1.00	34.46	B	C
ATOM	6451	O	PRO	B	367	76.947	19.549	39.802	1.00	35.00	B	O
ATOM	6452	N	HIS	B	368	77.038	18.749	41.898	1.00	35.22	B	N
ATOM	6453	CA	HIS	B	368	76.155	17.618	41.631	1.00	37.51	B	C
ATOM	6454	CB	HIS	B	368	76.837	16.288	41.915	1.00	38.53	B	C
ATOM	6455	CG	HIS	B	368	77.679	15.779	40.790	1.00	38.03	B	C
ATOM	6456	CD2	HIS	B	368	78.992	15.949	40.521	1.00	38.80	B	C
ATOM	6457	ND1	HIS	B	368	77.176	14.986	39.786	1.00	38.12	B	N
ATOM	6458	CE1	HIS	B	368	78.150	14.684	38.941	1.00	39.53	B	C
ATOM	6459	NE2	HIS	B	368	79.259	15.257	39.365	1.00	38.69	B	N
ATOM	6460	C	HIS	B	368	75.014	17.766	42.605	1.00	39.31	B	C
ATOM	6461	O	HIS	B	368	75.021	18.667	43.444	1.00	38.83	B	O
ATOM	6462	N	ALA	B	369	74.050	16.858	42.520	1.00	42.56	B	N
ATOM	6463	CA	ALA	B	369	72.893	16.897	43.410	1.00	45.35	B	C
ATOM	6464	CB	ALA	B	369	71.972	18.027	42.995	1.00	46.72	B	C
ATOM	6465	C	ALA	B	369	72.119	15.586	43.405	1.00	45.82	B	C
ATOM	6466	O	ALA	B	369	71.575	15.184	42.379	1.00	46.68	B	O
ATOM	6467	N	VAL	B	370	72.043	14.929	44.553	1.00	47.03	B	N
ATOM	6468	CA	VAL	B	370	71.321	13.675	44.595	1.00	48.75	B	C
ATOM	6469	CB	VAL	B	370	71.186	13.168	46.009	1.00	49.11	B	C
ATOM	6470	CG1	VAL	B	370	72.560	12.798	46.527	1.00	49.22	B	C
ATOM	6471	CG2	VAL	B	370	70.565	14.238	46.873	1.00	51.71	B	C
ATOM	6472	C	VAL	B	370	69.955	13.768	43.929	1.00	50.84	B	C
ATOM	6473	O	VAL	B	370	69.309	14.817	43.889	1.00	50.00	B	O
ATOM	6474	N	THR	B	371	69.541	12.628	43.398	1.00	54.27	B	N
ATOM	6475	CA	THR	B	371	68.307	12.488	42.656	1.00	58.36	B	C
ATOM	6476	CB	THR	B	371	68.511	11.370	41.613	1.00	57.29	B	C
ATOM	6477	OG1	THR	B	371	68.097	11.825	40.321	1.00	58.30	B	O
ATOM	6478	CG2	THR	B	371	67.738	10.126	41.992	1.00	58.90	B	C
ATOM	6479	C	THR	B	371	67.090	12.209	43.545	1.00	61.81	B	C
ATOM	6480	O	THR	B	371	65.954	12.480	43.151	1.00	61.94	B	O
ATOM	6481	N	CYS	B	372	67.338	11.664	44.738	1.00	66.36	B	N
ATOM	6482	CA	CYS	B	372	66.276	11.336	45.700	1.00	70.81	B	C
ATOM	6483	CB	CYS	B	372	65.487	10.102	45.225	1.00	72.43	B	C
ATOM	6484	SG	CYS	B	372	66.433	8.547	45.083	1.00	76.70	B	S
ATOM	6485	C	CYS	B	372	66.864	11.073	47.091	1.00	72.31	B	C
ATOM	6486	O	CYS	B	372	68.072	10.879	47.223	1.00	73.76	B	O
ATOM	6487	N	ASP	B	373	66.039	11.066	48.135	1.00	73.40	B	N
ATOM	6488	CA	ASP	B	373	66.573	10.820	49.485	1.00	74.50	B	C
ATOM	6489	CB	ASP	B	373	65.433	10.745	50.513	1.00	74.83	B	C
ATOM	6490	CG	ASP	B	373	64.637	12.043	50.607	1.00	76.03	B	C
ATOM	6491	OD1	ASP	B	373	63.941	12.386	49.624	1.00	76.38	B	O
ATOM	6492	OD2	ASP	B	373	64.704	12.718	51.660	1.00	75.86	B	O
ATOM	6493	C	ASP	B	373	67.374	9.510	49.486	1.00	74.47	B	C
ATOM	6494	O	ASP	B	373	66.939	8.513	48.914	1.00	74.89	B	O
ATOM	6495	N	ILE	B	374	68.546	9.513	50.109	1.00	73.54	B	N
ATOM	6496	CA	ILE	B	374	69.359	8.303	50.144	1.00	73.51	B	C
ATOM	6497	CB	ILE	B	374	70.304	8.220	48.917	1.00	72.68	B	C
ATOM	6498	CG2	ILE	B	374	71.308	9.368	48.946	1.00	69.86	B	C
ATOM	6499	CG1	ILE	B	374	71.026	6.862	48.903	1.00	72.83	B	C
ATOM	6500	CD1	ILE	B	374	70.085	5.647	48.861	1.00	72.87	B	C
ATOM	6501	C	ILE	B	374	70.206	8.153	51.401	1.00	73.93	B	C
ATOM	6502	O	ILE	B	374	70.651	9.138	51.988	1.00	74.28	B	O
ATOM	6503	N	LYS	B	375	70.412	6.907	51.819	1.00	73.55	B	N
ATOM	6504	CA	LYS	B	375	71.219	6.612	52.995	1.00	73.14	B	C
ATOM	6505	CB	LYS	B	375	70.651	5.394	53.743	1.00	74.76	B	C
ATOM	6506	CG	LYS	B	375	71.274	5.148	55.122	1.00	75.55	B	C
ATOM	6507	CD	LYS	B	375	70.206	4.922	56.212	1.00	76.43	B	C
ATOM	6508	CE	LYS	B	375	70.233	3.496	56.783	1.00	77.31	B	C
ATOM	6509	NZ	LYS	B	375	69.933	2.452	55.752	1.00	77.65	B	N
ATOM	6510	C	LYS	B	375	72.619	6.330	52.474	1.00	71.80	B	C
ATOM	6511	O	LYS	B	375	72.903	5.258	51.935	1.00	72.13	B	O
ATOM	6512	N	PHE	B	376	73.490	7.313	52.616	1.00	69.44	B	N
ATOM	6513	CA	PHE	B	376	74.843	7.173	52.134	1.00	66.83	B	C
ATOM	6514	CB	PHE	B	376	75.208	8.398	51.312	1.00	64.93	B	C
ATOM	6515	CG	PHE	B	376	76.588	8.367	50.773	1.00	63.16	B	C
ATOM	6516	CD1	PHE	B	376	76.963	7.413	49.838	1.00	63.22	B	C
ATOM	6517	CD2	PHE	B	376	77.518	9.304	51.190	1.00	62.33	B	C
ATOM	6518	CE1	PHE	B	376	78.252	7.399	49.322	1.00	63.21	B	C
ATOM	6519	CE2	PHE	B	376	78.809	9.301	50.682	1.00	62.26	B	C
ATOM	6520	CZ	PHE	B	376	79.178	8.347	49.747	1.00	62.61	B	C
ATOM	6521	C	PHE	B	376	75.774	7.036	53.315	1.00	66.75	B	C

284/514

Figure 3

ATOM	6522	O	PHE	B	376	75.837	7.923	54.163	1.00	66.50	B	O
ATOM	6523	N	ARG	B	377	76.486	5.918	53.386	1.00	66.56	B	N
ATOM	6524	CA	ARG	B	377	77.409	5.695	54.484	1.00	66.66	B	C
ATOM	6525	CB	ARG	B	377	78.604	6.648	54.350	1.00	65.79	B	C
ATOM	6526	CG	ARG	B	377	79.419	6.481	53.051	1.00	65.17	B	C
ATOM	6527	CD	ARG	B	377	80.599	5.519	53.206	1.00	63.83	B	C
ATOM	6528	NE	ARG	B	377	81.875	6.215	53.414	1.00	60.17	B	N
ATOM	6529	CZ	ARG	B	377	82.955	6.042	52.651	1.00	58.46	B	C
ATOM	6530	NH1	ARG	B	377	82.924	5.200	51.628	1.00	56.72	B	N
ATOM	6531	NH2	ARG	B	377	84.070	6.707	52.910	1.00	56.82	B	N
ATOM	6532	C	ARG	B	377	76.680	5.922	55.815	1.00	67.61	B	C
ATOM	6533	O	ARG	B	377	77.282	6.370	56.792	1.00	66.26	B	O
ATOM	6534	N	ASN	B	378	75.380	5.610	55.827	1.00	68.43	B	N
ATOM	6535	CA	ASN	B	378	74.527	5.756	57.015	1.00	70.36	B	C
ATOM	6536	CB	ASN	B	378	75.043	4.824	58.133	1.00	73.13	B	C
ATOM	6537	CG	ASN	B	378	73.987	4.500	59.218	1.00	76.47	B	C
ATOM	6538	OD1	ASN	B	378	74.302	3.814	60.206	1.00	77.99	B	O
ATOM	6539	ND2	ASN	B	378	72.748	4.972	59.037	1.00	77.44	B	N
ATOM	6540	C	ASN	B	378	74.519	7.225	57.486	1.00	69.43	B	C
ATOM	6541	O	ASN	B	378	74.673	7.498	58.680	1.00	69.13	B	O
ATOM	6542	N	TYR	B	379	74.339	8.169	56.556	1.00	68.24	B	N
ATOM	6543	CA	TYR	B	379	74.318	9.593	56.915	1.00	67.10	B	C
ATOM	6544	CB	TYR	B	379	75.487	10.348	56.251	1.00	65.63	B	C
ATOM	6545	CG	TYR	B	379	76.761	10.342	57.077	1.00	65.34	B	C
ATOM	6546	CD1	TYR	B	379	77.847	9.524	56.731	1.00	65.53	B	C
ATOM	6547	CE1	TYR	B	379	79.008	9.484	57.520	1.00	65.75	B	C
ATOM	6548	CD2	TYR	B	379	76.866	11.120	58.230	1.00	64.24	B	C
ATOM	6549	CE2	TYR	B	379	78.013	11.087	59.020	1.00	64.92	B	C
ATOM	6550	CZ	TYR	B	379	79.079	10.270	58.667	1.00	65.93	B	C
ATOM	6551	OH	TYR	B	379	80.211	10.236	59.460	1.00	66.04	B	O
ATOM	6552	C	TYR	B	379	73.000	10.307	56.615	1.00	66.78	B	C
ATOM	6553	O	TYR	B	379	72.646	11.282	57.289	1.00	67.86	B	O
ATOM	6554	N	LEU	B	380	72.269	9.802	55.625	1.00	66.11	B	N
ATOM	6555	CA	LEU	B	380	70.986	10.380	55.218	1.00	66.42	B	C
ATOM	6556	CB	LEU	B	380	70.018	10.473	56.420	1.00	67.38	B	C
ATOM	6557	CG	LEU	B	380	68.655	11.191	56.276	1.00	69.09	B	C
ATOM	6558	CD1	LEU	B	380	67.843	10.547	55.159	1.00	67.54	B	C
ATOM	6559	CD2	LEU	B	380	67.876	11.146	57.607	1.00	69.45	B	C
ATOM	6560	C	LEU	B	380	71.166	11.753	54.559	1.00	64.57	B	C
ATOM	6561	O	LEU	B	380	71.389	12.762	55.233	1.00	64.67	B	O
ATOM	6562	N	ILE	B	381	71.080	11.769	53.229	1.00	63.06	B	N
ATOM	6563	CA	ILE	B	381	71.210	12.987	52.428	1.00	60.46	B	C
ATOM	6564	CB	ILE	B	381	72.391	12.879	51.409	1.00	58.36	B	C
ATOM	6565	CG2	ILE	B	381	72.561	14.188	50.657	1.00	57.52	B	C
ATOM	6566	CG1	ILE	B	381	73.696	12.601	52.143	1.00	57.06	B	C
ATOM	6567	CD1	ILE	B	381	74.814	12.159	51.235	1.00	56.71	B	C
ATOM	6568	C	ILE	B	381	69.898	13.189	51.658	1.00	59.27	B	C
ATOM	6569	O	ILE	B	381	69.600	12.460	50.704	1.00	59.80	B	O
ATOM	6570	N	PRO	B	382	69.101	14.190	52.063	1.00	57.81	B	N
ATOM	6571	CD	PRO	B	382	69.456	15.198	53.077	1.00	57.70	B	C
ATOM	6572	CA	PRO	B	382	67.817	14.509	51.436	1.00	57.56	B	C
ATOM	6573	CB	PRO	B	382	67.318	15.676	52.279	1.00	57.02	B	C
ATOM	6574	CG	PRO	B	382	68.593	16.360	52.673	1.00	58.19	B	C
ATOM	6575	C	PRO	B	382	67.952	14.854	49.965	1.00	55.87	B	C
ATOM	6576	O	PRO	B	382	69.046	15.137	49.491	1.00	54.08	B	O
ATOM	6577	N	LYS	B	383	66.834	14.824	49.250	1.00	56.59	B	N
ATOM	6578	CA	LYS	B	383	66.808	15.126	47.822	1.00	57.99	B	C
ATOM	6579	CB	LYS	B	383	65.463	14.705	47.229	1.00	59.23	B	C
ATOM	6580	CG	LYS	B	383	65.338	15.029	45.753	1.00	62.82	B	C
ATOM	6581	CD	LYS	B	383	64.026	14.531	45.144	1.00	65.11	B	C
ATOM	6582	CE	LYS	B	383	62.835	15.366	45.598	1.00	66.33	B	C
ATOM	6583	NZ	LYS	B	383	61.602	15.070	44.803	1.00	67.10	B	N
ATOM	6584	C	LYS	B	383	67.043	16.606	47.518	1.00	57.17	B	C
ATOM	6585	O	LYS	B	383	66.431	17.473	48.131	1.00	59.08	B	O
ATOM	6586	N	GLY	B	384	67.923	16.891	46.567	1.00	54.71	B	N
ATOM	6587	CA	GLY	B	384	68.185	18.272	46.220	1.00	51.57	B	C
ATOM	6588	C	GLY	B	384	69.497	18.834	46.728	1.00	49.77	B	C
ATOM	6589	O	GLY	B	384	70.143	19.629	46.032	1.00	50.34	B	O
ATOM	6590	N	THR	B	385	69.908	18.425	47.926	1.00	47.45	B	N
ATOM	6591	CA	THR	B	385	71.158	18.916	48.497	1.00	44.96	B	C
ATOM	6592	CB	THR	B	385	71.527	18.184	49.815	1.00	45.73	B	C
ATOM	6593	OG1	THR	B	385	71.567	16.768	49.594	1.00	46.81	B	O
ATOM	6594	CG2	THR	B	385	70.509	18.504	50.905	1.00	46.69	B	C
ATOM	6595	C	THR	B	385	72.306	18.770	47.509	1.00	42.58	B	C
ATOM	6596	O	THR	B	385	72.535	17.701	46.941	1.00	42.89	B	O

Figure 3

ATOM	6597	N	THR	B	386	73.008	19.870	47.293	1.00	38.75	B	N
ATOM	6598	CA	THR	B	386	74.133	19.893	46.374	1.00	35.50	B	C
ATOM	6599	CB	THR	B	386	74.639	21.315	46.218	1.00	35.22	B	C
ATOM	6600	OG1	THR	B	386	73.567	22.144	45.751	1.00	36.11	B	O
ATOM	6601	CG2	THR	B	386	75.782	21.363	45.243	1.00	35.18	B	C
ATOM	6602	C	THR	B	386	75.264	19.006	46.870	1.00	33.78	B	C
ATOM	6603	O	THR	B	386	75.458	18.852	48.077	1.00	33.72	B	O
ATOM	6604	N	ILE	B	387	76.000	18.414	45.934	1.00	32.68	B	N
ATOM	6605	CA	ILE	B	387	77.121	17.536	46.270	1.00	31.09	B	C
ATOM	6606	CB	ILE	B	387	76.917	16.121	45.711	1.00	31.44	B	C
ATOM	6607	CG2	ILE	B	387	78.057	15.226	46.148	1.00	31.38	B	C
ATOM	6608	CG1	ILE	B	387	75.590	15.553	46.196	1.00	32.87	B	C
ATOM	6609	CD1	ILE	B	387	75.505	15.448	47.691	1.00	33.98	B	C
ATOM	6610	C	ILE	B	387	78.388	18.085	45.643	1.00	29.90	B	C
ATOM	6611	O	ILE	B	387	78.396	18.467	44.483	1.00	29.81	B	O
ATOM	6612	N	LEU	B	388	79.466	18.119	46.394	1.00	28.61	B	N
ATOM	6613	CA	LEU	B	388	80.686	18.632	45.827	1.00	28.48	B	C
ATOM	6614	CB	LEU	B	388	81.192	19.798	46.671	1.00	29.26	B	C
ATOM	6615	CG	LEU	B	388	81.139	21.202	46.052	1.00	30.05	B	C
ATOM	6616	CD1	LEU	B	388	81.433	22.252	47.110	1.00	32.12	B	C
ATOM	6617	CD2	LEU	B	388	82.140	21.301	44.937	1.00	31.58	B	C
ATOM	6618	C	LEU	B	388	81.728	17.524	45.735	1.00	28.56	B	C
ATOM	6619	O	LEU	B	388	82.115	16.930	46.741	1.00	29.38	B	O
ATOM	6620	N	ILE	B	389	82.172	17.242	44.517	1.00	26.86	B	N
ATOM	6621	CA	ILE	B	389	83.151	16.199	44.300	1.00	24.74	B	C
ATOM	6622	CB	ILE	B	389	82.950	15.490	42.969	1.00	24.76	B	C
ATOM	6623	CG2	ILE	B	389	84.095	14.503	42.743	1.00	26.45	B	C
ATOM	6624	CG1	ILE	B	389	81.596	14.801	42.952	1.00	24.13	B	C
ATOM	6625	CD1	ILE	B	389	81.373	13.886	44.126	1.00	21.64	B	C
ATOM	6626	C	ILE	B	389	84.563	16.698	44.302	1.00	24.24	B	C
ATOM	6627	O	ILE	B	389	84.954	17.522	43.474	1.00	25.19	B	O
ATOM	6628	N	SER	B	390	85.356	16.166	45.208	1.00	23.48	B	N
ATOM	6629	CA	SER	B	390	86.727	16.605	45.271	1.00	23.33	B	C
ATOM	6630	CB	SER	B	390	87.251	16.515	46.692	1.00	23.70	B	C
ATOM	6631	OG	SER	B	390	88.603	16.918	46.706	1.00	25.64	B	O
ATOM	6632	C	SER	B	390	87.670	15.846	44.366	1.00	23.55	B	C
ATOM	6633	O	SER	B	390	88.461	15.034	44.833	1.00	23.30	B	O
ATOM	6634	N	LEU	B	391	87.606	16.125	43.075	1.00	22.57	B	N
ATOM	6635	CA	LEU	B	391	88.501	15.475	42.140	1.00	21.67	B	C
ATOM	6636	CB	LEU	B	391	88.383	16.098	40.769	1.00	18.58	B	C
ATOM	6637	CG	LEU	B	391	86.954	16.010	40.281	1.00	16.61	B	C
ATOM	6638	CD1	LEU	B	391	86.918	16.479	38.851	1.00	13.19	B	C
ATOM	6639	CD2	LEU	B	391	86.436	14.590	40.419	1.00	15.02	B	C
ATOM	6640	C	LEU	B	391	89.939	15.603	42.583	1.00	23.22	B	C
ATOM	6641	O	LEU	B	391	90.715	14.667	42.433	1.00	23.37	B	O
ATOM	6642	N	THR	B	392	90.305	16.761	43.111	1.00	24.12	B	N
ATOM	6643	CA	THR	B	392	91.674	16.925	43.533	1.00	26.59	B	C
ATOM	6644	CB	THR	B	392	91.885	18.125	44.448	1.00	28.07	B	C
ATOM	6645	OG1	THR	B	392	91.542	19.327	43.758	1.00	32.35	B	O
ATOM	6646	CG2	THR	B	392	93.354	18.186	44.876	1.00	29.57	B	C
ATOM	6647	C	THR	B	392	92.159	15.706	44.302	1.00	26.92	B	C
ATOM	6648	O	THR	B	392	93.186	15.116	43.961	1.00	26.38	B	O
ATOM	6649	N	SER	B	393	91.414	15.332	45.334	1.00	26.87	B	N
ATOM	6650	CA	SER	B	393	91.778	14.203	46.169	1.00	27.79	B	C
ATOM	6651	CB	SER	B	393	90.651	13.878	47.133	1.00	27.48	B	C
ATOM	6652	OG	SER	B	393	89.488	13.605	46.389	1.00	29.39	B	O
ATOM	6653	C	SER	B	393	92.083	12.966	45.353	1.00	27.86	B	C
ATOM	6654	O	SER	B	393	93.009	12.210	45.657	1.00	30.63	B	O
ATOM	6655	N	VAL	B	394	91.299	12.740	44.313	1.00	25.74	B	N
ATOM	6656	CA	VAL	B	394	91.538	11.565	43.503	1.00	24.23	B	C
ATOM	6657	CB	VAL	B	394	90.357	11.274	42.590	1.00	22.73	B	C
ATOM	6658	CG1	VAL	B	394	90.518	9.912	41.970	1.00	24.14	B	C
ATOM	6659	CG2	VAL	B	394	89.090	11.374	43.365	1.00	21.34	B	C
ATOM	6660	C	VAL	B	394	92.793	11.772	42.658	1.00	25.05	B	C
ATOM	6661	O	VAL	B	394	93.678	10.926	42.635	1.00	25.29	B	O
ATOM	6662	N	LEU	B	395	92.876	12.909	41.984	1.00	24.36	B	N
ATOM	6663	CA	LEU	B	395	94.016	13.177	41.145	1.00	24.09	B	C
ATOM	6664	CB	LEU	B	395	93.767	14.381	40.277	1.00	25.76	B	C
ATOM	6665	CG	LEU	B	395	93.259	14.079	38.888	1.00	28.65	B	C
ATOM	6666	CD1	LEU	B	395	91.761	13.827	38.894	1.00	30.05	B	C
ATOM	6667	CD2	LEU	B	395	93.619	15.268	38.034	1.00	29.58	B	C
ATOM	6668	C	LEU	B	395	95.312	13.415	41.870	1.00	23.29	B	C
ATOM	6669	O	LEU	B	395	96.369	13.485	41.248	1.00	22.34	B	O
ATOM	6670	N	HIS	B	396	95.257	13.566	43.178	1.00	24.47	B	N
ATOM	6671	CA	HIS	B	396	96.484	13.814	43.889	1.00	27.20	B	C

Figure 3

ATOM	6672	CB	HIS	B	396	96.526	15.254	44.395	1.00	27.12	B	C
ATOM	6673	CG	HIS	B	396	96.838	16.255	43.326	1.00	28.04	B	C
ATOM	6674	CD2	HIS	B	396	96.227	16.523	42.148	1.00	28.29	B	C
ATOM	6675	ND1	HIS	B	396	97.909	17.117	43.403	1.00	29.30	B	N
ATOM	6676	CE1	HIS	B	396	97.945	17.875	42.322	1.00	28.87	B	C
ATOM	6677	NE2	HIS	B	396	96.936	17.534	41.542	1.00	28.53	B	N
ATOM	6678	C	HIS	B	396	96.640	12.849	45.021	1.00	29.38	B	C
ATOM	6679	O	HIS	B	396	97.389	13.100	45.958	1.00	30.46	B	O
ATOM	6680	N	ASP	B	397	95.941	11.727	44.927	1.00	32.68	B	N
ATOM	6681	CA	ASP	B	397	96.016	10.739	45.987	1.00	35.48	B	C
ATOM	6682	CB	ASP	B	397	95.371	9.434	45.556	1.00	36.01	B	C
ATOM	6683	CG	ASP	B	397	95.252	8.472	46.699	1.00	38.58	B	C
ATOM	6684	OD1	ASP	B	397	96.307	8.037	47.202	1.00	38.21	B	O
ATOM	6685	OD2	ASP	B	397	94.108	8.182	47.126	1.00	40.77	B	O
ATOM	6686	C	ASP	B	397	97.448	10.484	46.447	1.00	37.62	B	C
ATOM	6687	O	ASP	B	397	98.314	10.098	45.669	1.00	38.00	B	O
ATOM	6688	N	ASN	B	398	97.683	10.679	47.737	1.00	41.41	B	N
ATOM	6689	CA	ASN	B	398	99.020	10.526	48.295	1.00	44.81	B	C
ATOM	6690	CB	ASN	B	398	98.993	10.828	49.797	1.00	46.68	B	C
ATOM	6691	CG	ASN	B	398	100.151	11.718	50.215	1.00	50.23	B	C
ATOM	6692	OD1	ASN	B	398	100.037	12.558	51.127	1.00	51.64	B	O
ATOM	6693	ND2	ASN	B	398	101.288	11.536	49.540	1.00	48.72	B	N
ATOM	6694	C	ASN	B	398	99.762	9.217	48.047	1.00	45.80	B	C
ATOM	6695	O	ASN	B	398	100.994	9.211	48.013	1.00	45.72	B	O
ATOM	6696	N	LYS	B	399	99.014	8.128	47.868	1.00	46.72	B	N
ATOM	6697	CA	LYS	B	399	99.568	6.784	47.637	1.00	47.83	B	C
ATOM	6698	CB	LYS	B	399	98.684	5.745	48.333	1.00	50.33	B	C
ATOM	6699	CG	LYS	B	399	99.132	4.321	48.121	1.00	53.77	B	C
ATOM	6700	CD	LYS	B	399	98.099	3.333	48.635	1.00	56.37	B	C
ATOM	6701	CE	LYS	B	399	98.690	1.918	48.699	1.00	57.83	B	C
ATOM	6702	NZ	LYS	B	399	99.569	1.720	49.915	1.00	59.13	B	N
ATOM	6703	C	LYS	B	399	99.693	6.408	46.151	1.00	47.31	B	C
ATOM	6704	O	LYS	B	399	100.787	6.104	45.659	1.00	48.23	B	O
ATOM	6705	N	GLU	B	400	98.561	6.408	45.451	1.00	44.20	B	N
ATOM	6706	CA	GLU	B	400	98.532	6.080	44.031	1.00	40.88	B	C
ATOM	6707	CB	GLU	B	400	97.132	6.296	43.460	1.00	40.70	B	C
ATOM	6708	CG	GLU	B	400	96.991	5.950	41.983	1.00	40.76	B	C
ATOM	6709	CD	GLU	B	400	97.030	4.456	41.731	1.00	41.84	B	C
ATOM	6710	OE1	GLU	B	400	97.080	4.036	40.560	1.00	40.41	B	O
ATOM	6711	OE2	GLU	B	400	97.004	3.689	42.713	1.00	44.81	B	O
ATOM	6712	C	GLU	B	400	99.528	6.914	43.231	1.00	38.72	B	C
ATOM	6713	O	GLU	B	400	99.946	6.506	42.159	1.00	39.61	B	O
ATOM	6714	N	PHE	B	401	99.891	8.089	43.729	1.00	37.19	B	N
ATOM	6715	CA	PHE	B	401	100.855	8.920	43.025	1.00	35.69	B	C
ATOM	6716	CB	PHE	B	401	100.194	10.080	42.297	1.00	31.78	B	C
ATOM	6717	CG	PHE	B	401	99.129	9.689	41.320	1.00	27.99	B	C
ATOM	6718	CD1	PHE	B	401	97.801	9.958	41.602	1.00	26.00	B	C
ATOM	6719	CD2	PHE	B	401	99.441	9.121	40.100	1.00	26.66	B	C
ATOM	6720	CE1	PHE	B	401	96.795	9.681	40.689	1.00	23.12	B	C
ATOM	6721	CE2	PHE	B	401	98.426	8.839	39.178	1.00	26.25	B	C
ATOM	6722	CZ	PHE	B	401	97.104	9.123	39.489	1.00	24.51	B	C
ATOM	6723	C	PHE	B	401	101.841	9.520	44.011	1.00	39.16	B	C
ATOM	6724	O	PHE	B	401	101.581	10.567	44.582	1.00	39.82	B	O
ATOM	6725	N	PRO	B	402	103.002	8.880	44.197	1.00	42.88	B	N
ATOM	6726	CD	PRO	B	402	103.481	7.814	43.303	1.00	44.32	B	C
ATOM	6727	CA	PRO	B	402	104.076	9.292	45.103	1.00	44.10	B	C
ATOM	6728	CB	PRO	B	402	105.315	8.939	44.320	1.00	45.40	B	C
ATOM	6729	CG	PRO	B	402	104.923	7.590	43.782	1.00	46.53	B	C
ATOM	6730	C	PRO	B	402	104.093	10.741	45.607	1.00	46.68	B	C
ATOM	6731	O	PRO	B	402	103.675	11.009	46.741	1.00	49.69	B	O
ATOM	6732	N	ASN	B	403	104.606	11.667	44.798	1.00	46.36	B	N
ATOM	6733	CA	ASN	B	403	104.676	13.089	45.167	1.00	46.57	B	C
ATOM	6734	CB	ASN	B	403	106.111	13.609	45.001	1.00	48.98	B	C
ATOM	6735	CG	ASN	B	403	107.074	12.953	45.956	1.00	50.51	B	C
ATOM	6736	OD1	ASN	B	403	107.010	13.179	47.165	1.00	52.97	B	O
ATOM	6737	ND2	ASN	B	403	107.971	12.126	45.425	1.00	49.45	B	N
ATOM	6738	C	ASN	B	403	103.747	13.866	44.259	1.00	45.44	B	C
ATOM	6739	O	ASN	B	403	104.196	14.568	43.355	1.00	45.43	B	O
ATOM	6740	N	PRO	B	404	102.437	13.772	44.510	1.00	44.08	B	N
ATOM	6741	CD	PRO	B	404	101.873	13.186	45.730	1.00	42.76	B	C
ATOM	6742	CA	PRO	B	404	101.378	14.430	43.746	1.00	44.39	B	C
ATOM	6743	CB	PRO	B	404	100.158	14.265	44.643	1.00	43.37	B	C
ATOM	6744	CG	PRO	B	404	100.436	13.001	45.345	1.00	42.10	B	C
ATOM	6745	C	PRO	B	404	101.600	15.885	43.365	1.00	45.41	B	C
ATOM	6746	O	PRO	B	404	101.075	16.341	42.360	1.00	45.56	B	O

Figure 3

ATOM	6747	N	GLU	B	405	102.377	16.606	44.161	1.00	47.74	B	N
ATOM	6748	CA	GLU	B	405	102.621	18.016	43.897	1.00	50.69	B	C
ATOM	6749	CB	GLU	B	405	102.958	18.728	45.205	1.00	54.92	B	C
ATOM	6750	CG	GLU	B	405	101.867	18.568	46.279	1.00	62.07	B	C
ATOM	6751	CD	GLU	B	405	100.595	19.353	45.950	1.00	65.78	B	C
ATOM	6752	OE1	GLU	B	405	100.556	20.577	46.256	1.00	67.05	B	O
ATOM	6753	OE2	GLU	B	405	99.649	18.751	45.375	1.00	67.67	B	O
ATOM	6754	C	GLU	B	405	103.716	18.276	42.880	1.00	49.86	B	C
ATOM	6755	O	GLU	B	405	103.965	19.422	42.496	1.00	50.00	B	O
ATOM	6756	N	MET	B	406	104.376	17.216	42.443	1.00	49.20	B	N
ATOM	6757	CA	MET	B	406	105.451	17.363	41.479	1.00	49.59	B	C
ATOM	6758	CB	MET	B	406	106.720	16.726	42.064	1.00	54.31	B	C
ATOM	6759	CG	MET	B	406	107.219	17.411	43.354	1.00	60.20	B	C
ATOM	6760	SD	MET	B	406	108.734	18.436	43.134	1.00	65.61	B	S
ATOM	6761	CE	MET	B	406	110.045	17.331	43.846	1.00	64.30	B	C
ATOM	6762	C	MET	B	406	105.080	16.767	40.116	1.00	47.03	B	C
ATOM	6763	O	MET	B	406	104.290	15.828	40.022	1.00	47.49	B	O
ATOM	6764	N	PHE	B	407	105.630	17.329	39.051	1.00	43.90	B	N
ATOM	6765	CA	PHE	B	407	105.312	16.833	37.719	1.00	40.32	B	C
ATOM	6766	CB	PHE	B	407	105.501	17.945	36.693	1.00	36.66	B	C
ATOM	6767	CG	PHE	B	407	105.182	17.531	35.292	1.00	32.03	B	C
ATOM	6768	CD1	PHE	B	407	103.873	17.269	34.915	1.00	32.06	B	C
ATOM	6769	CD2	PHE	B	407	106.183	17.410	34.345	1.00	30.34	B	C
ATOM	6770	CE1	PHE	B	407	103.556	16.890	33.608	1.00	29.62	B	C
ATOM	6771	CE2	PHE	B	407	105.883	17.029	33.030	1.00	29.33	B	C
ATOM	6772	CZ	PHE	B	407	104.564	16.771	32.666	1.00	28.28	B	C
ATOM	6773	C	PHE	B	407	106.202	15.665	37.342	1.00	40.18	B	C
ATOM	6774	O	PHE	B	407	107.410	15.828	37.193	1.00	40.78	B	O
ATOM	6775	N	ASP	B	408	105.633	14.481	37.176	1.00	39.42	B	N
ATOM	6776	CA	ASP	B	408	106.474	13.356	36.798	1.00	38.59	B	C
ATOM	6777	CB	ASP	B	408	106.989	12.647	38.054	1.00	39.88	B	C
ATOM	6778	CG	ASP	B	408	107.994	11.539	37.755	1.00	42.25	B	C
ATOM	6779	OD1	ASP	B	408	108.523	10.961	38.742	1.00	42.50	B	O
ATOM	6780	OD2	ASP	B	408	108.257	11.244	36.562	1.00	42.88	B	O
ATOM	6781	C	ASP	B	408	105.723	12.388	35.917	1.00	37.04	B	C
ATOM	6782	O	ASP	B	408	104.778	11.752	36.356	1.00	36.40	B	O
ATOM	6783	N	PRO	B	409	106.125	12.287	34.646	1.00	35.17	B	N
ATOM	6784	CD	PRO	B	409	107.174	13.109	34.027	1.00	36.46	B	C
ATOM	6785	CA	PRO	B	409	105.519	11.403	33.656	1.00	36.39	B	C
ATOM	6786	CB	PRO	B	409	106.438	11.550	32.452	1.00	35.98	B	C
ATOM	6787	CG	PRO	B	409	106.891	12.946	32.550	1.00	36.05	B	C
ATOM	6788	C	PRO	B	409	105.501	9.979	34.166	1.00	35.87	B	C
ATOM	6789	O	PRO	B	409	104.602	9.192	33.838	1.00	36.12	B	O
ATOM	6790	N	HIS	B	410	106.493	9.644	34.982	1.00	37.10	B	N
ATOM	6791	CA	HIS	B	410	106.582	8.289	35.506	1.00	37.05	B	C
ATOM	6792	CB	HIS	B	410	107.913	8.090	36.260	1.00	38.51	B	C
ATOM	6793	CG	HIS	B	410	109.129	8.305	35.408	1.00	41.16	B	C
ATOM	6794	CD2	HIS	B	410	110.205	9.112	35.572	1.00	41.99	B	C
ATOM	6795	ND1	HIS	B	410	109.305	7.678	34.187	1.00	41.77	B	N
ATOM	6796	CE1	HIS	B	410	110.431	8.101	33.639	1.00	42.56	B	C
ATOM	6797	NE2	HIS	B	410	110.997	8.973	34.458	1.00	43.05	B	N
ATOM	6798	C	HIS	B	410	105.380	7.883	36.364	1.00	36.89	B	C
ATOM	6799	O	HIS	B	410	105.268	6.713	36.725	1.00	39.63	B	O
ATOM	6800	N	HIS	B	411	104.485	8.827	36.685	1.00	37.10	B	N
ATOM	6801	CA	HIS	B	411	103.264	8.502	37.463	1.00	35.36	B	C
ATOM	6802	CB	HIS	B	411	102.477	9.756	37.868	1.00	36.31	B	C
ATOM	6803	CG	HIS	B	411	103.025	10.460	39.068	1.00	37.20	B	C
ATOM	6804	CD2	HIS	B	411	103.509	11.718	39.224	1.00	37.39	B	C
ATOM	6805	ND1	HIS	B	411	103.151	9.846	40.293	1.00	37.32	B	N
ATOM	6806	CE1	HIS	B	411	103.694	10.691	41.157	1.00	37.63	B	C
ATOM	6807	NE2	HIS	B	411	103.920	11.830	40.532	1.00	37.46	B	N
ATOM	6808	C	HIS	B	411	102.349	7.665	36.581	1.00	34.23	B	C
ATOM	6809	O	HIS	B	411	101.355	7.104	37.042	1.00	34.68	B	O
ATOM	6810	N	PHE	B	412	102.658	7.621	35.294	1.00	33.92	B	N
ATOM	6811	CA	PHE	B	412	101.846	6.833	34.389	1.00	34.87	B	C
ATOM	6812	CB	PHE	B	412	101.010	7.745	33.489	1.00	32.27	B	C
ATOM	6813	CG	PHE	B	412	99.878	8.407	34.207	1.00	30.45	B	C
ATOM	6814	CD1	PHE	B	412	100.067	9.605	34.872	1.00	30.54	B	C
ATOM	6815	CD2	PHE	B	412	98.629	7.799	34.259	1.00	31.22	B	C
ATOM	6816	CE1	PHE	B	412	99.027	10.194	35.587	1.00	31.98	B	C
ATOM	6817	CE2	PHE	B	412	97.575	8.377	34.972	1.00	31.68	B	C
ATOM	6818	CZ	PHE	B	412	97.778	9.575	35.636	1.00	32.07	B	C
ATOM	6819	C	PHE	B	412	102.712	5.882	33.575	1.00	37.26	B	C
ATOM	6820	O	PHE	B	412	102.448	5.615	32.405	1.00	36.60	B	O
ATOM	6821	N	LEU	B	413	103.753	5.376	34.225	1.00	38.78	B	N

Figure 3

ATOM	6822	CA	LEU	B	413	104.680	4.439	33.616	1.00	39.74	B	C
ATOM	6823	CB	LEU	B	413	105.935	5.168	33.147	1.00	36.34	B	C
ATOM	6824	CG	LEU	B	413	105.719	6.193	32.052	1.00	32.05	B	C
ATOM	6825	CD1	LEU	B	413	107.067	6.614	31.494	1.00	30.98	B	C
ATOM	6826	CD2	LEU	B	413	104.857	5.598	30.954	1.00	29.95	B	C
ATOM	6827	C	LEU	B	413	105.093	3.301	34.561	1.00	42.69	B	C
ATOM	6828	O	LEU	B	413	105.160	3.460	35.789	1.00	42.52	B	O
ATOM	6829	N	ASP	B	414	105.395	2.157	33.962	1.00	44.11	B	N
ATOM	6830	CA	ASP	B	414	105.823	0.998	34.713	1.00	46.15	B	C
ATOM	6831	CB	ASP	B	414	105.179	-0.278	34.150	1.00	43.53	B	C
ATOM	6832	CG	ASP	B	414	105.614	-0.577	32.733	1.00	45.66	B	C
ATOM	6833	OD1	ASP	B	414	105.011	-1.468	32.092	1.00	46.84	B	O
ATOM	6834	OD2	ASP	B	414	106.568	0.071	32.249	1.00	44.15	B	O
ATOM	6835	C	ASP	B	414	107.348	0.911	34.638	1.00	48.20	B	C
ATOM	6836	O	ASP	B	414	107.980	1.634	33.855	1.00	47.88	B	O
ATOM	6837	N	GLU	B	415	107.930	0.033	35.459	1.00	49.99	B	N
ATOM	6838	CA	GLU	B	415	109.383	-0.157	35.524	1.00	51.46	B	C
ATOM	6839	CB	GLU	B	415	109.714	-1.462	36.273	1.00	54.49	B	C
ATOM	6840	CG	GLU	B	415	109.199	-2.762	35.622	1.00	58.82	B	C
ATOM	6841	CD	GLU	B	415	107.966	-3.381	36.309	1.00	62.79	B	C
ATOM	6842	OE1	GLU	B	415	107.423	-4.373	35.748	1.00	65.08	B	O
ATOM	6843	OE2	GLU	B	415	107.544	-2.892	37.396	1.00	64.19	B	O
ATOM	6844	C	GLU	B	415	110.005	-0.164	34.130	1.00	50.65	B	C
ATOM	6845	O	GLU	B	415	111.026	0.494	33.888	1.00	51.07	B	O
ATOM	6846	N	GLY	B	416	109.388	-0.911	33.215	1.00	49.03	B	N
ATOM	6847	CA	GLY	B	416	109.879	-0.967	31.847	1.00	48.23	B	C
ATOM	6848	C	GLY	B	416	109.786	0.449	31.310	1.00	46.79	B	C
ATOM	6849	O	GLY	B	416	110.461	1.365	31.795	1.00	48.65	B	O
ATOM	6850	N	GLY	B	417	108.942	0.648	30.312	1.00	45.19	B	N
ATOM	6851	CA	GLY	B	417	108.782	1.983	29.782	1.00	42.93	B	C
ATOM	6852	C	GLY	B	417	107.348	2.130	29.330	1.00	41.14	B	C
ATOM	6853	O	GLY	B	417	106.961	3.181	28.824	1.00	41.52	B	O
ATOM	6854	N	ASN	B	418	106.558	1.072	29.531	1.00	40.29	B	N
ATOM	6855	CA	ASN	B	418	105.144	1.027	29.118	1.00	39.24	B	C
ATOM	6856	CB	ASN	B	418	104.576	-0.398	29.243	1.00	43.00	B	C
ATOM	6857	CG	ASN	B	418	105.472	-1.467	28.623	1.00	46.10	B	C
ATOM	6858	OD1	ASN	B	418	106.151	-2.213	29.342	1.00	47.85	B	O
ATOM	6859	ND2	ASN	B	418	105.472	-1.552	27.287	1.00	45.04	B	N
ATOM	6860	C	ASN	B	418	104.165	1.957	29.848	1.00	37.15	B	C
ATOM	6861	O	ASN	B	418	104.456	2.526	30.899	1.00	37.03	B	O
ATOM	6862	N	PHE	B	419	102.968	2.068	29.287	1.00	35.45	B	N
ATOM	6863	CA	PHE	B	419	101.955	2.926	29.874	1.00	33.04	B	C
ATOM	6864	CB	PHE	B	419	101.040	3.491	28.767	1.00	32.60	B	C
ATOM	6865	CG	PHE	B	419	99.936	4.381	29.278	1.00	31.06	B	C
ATOM	6866	CD1	PHE	B	419	100.205	5.664	29.760	1.00	31.12	B	C
ATOM	6867	CD2	PHE	B	419	98.642	3.894	29.370	1.00	31.80	B	C
ATOM	6868	CE1	PHE	B	419	99.196	6.435	30.338	1.00	30.53	B	C
ATOM	6869	CE2	PHE	B	419	97.633	4.652	29.943	1.00	31.80	B	C
ATOM	6870	CZ	PHE	B	419	97.908	5.924	30.433	1.00	30.82	B	C
ATOM	6871	C	PHE	B	419	101.135	2.227	30.959	1.00	32.27	B	C
ATOM	6872	O	PHE	B	419	100.612	1.116	30.770	1.00	31.23	B	O
ATOM	6873	N	LYS	B	420	101.050	2.897	32.106	1.00	32.22	B	N
ATOM	6874	CA	LYS	B	420	100.316	2.395	33.257	1.00	32.81	B	C
ATOM	6875	CB	LYS	B	420	101.196	2.393	34.509	1.00	35.83	B	C
ATOM	6876	CG	LYS	B	420	100.467	1.732	35.686	1.00	42.17	B	C
ATOM	6877	CD	LYS	B	420	101.418	1.095	36.682	1.00	47.40	B	C
ATOM	6878	CE	LYS	B	420	101.953	2.131	37.651	1.00	51.22	B	C
ATOM	6879	NZ	LYS	B	420	103.127	1.595	38.408	1.00	54.66	B	N
ATOM	6880	C	LYS	B	420	99.070	3.189	33.598	1.00	31.10	B	C
ATOM	6881	O	LYS	B	420	99.163	4.201	34.286	1.00	33.12	B	O
ATOM	6882	N	LYS	B	421	97.905	2.734	33.164	1.00	30.34	B	N
ATOM	6883	CA	LYS	B	421	96.672	3.443	33.492	1.00	30.25	B	C
ATOM	6884	CB	LYS	B	421	95.459	2.734	32.872	1.00	31.99	B	C
ATOM	6885	CG	LYS	B	421	95.119	1.358	33.450	1.00	34.73	B	C
ATOM	6886	CD	LYS	B	421	94.142	0.625	32.515	1.00	37.84	B	C
ATOM	6887	CE	LYS	B	421	93.795	-0.800	32.983	1.00	38.53	B	C
ATOM	6888	NZ	LYS	B	421	93.635	-1.713	31.789	1.00	41.32	B	N
ATOM	6889	C	LYS	B	421	96.470	3.544	34.998	1.00	30.00	B	C
ATOM	6890	O	LYS	B	421	97.285	3.032	35.761	1.00	31.09	B	O
ATOM	6891	N	SER	B	422	95.391	4.225	35.405	1.00	30.83	B	N
ATOM	6892	CA	SER	B	422	94.989	4.389	36.820	1.00	28.97	B	C
ATOM	6893	CB	SER	B	422	95.745	5.527	37.497	1.00	26.55	B	C
ATOM	6894	OG	SER	B	422	95.033	5.951	38.640	1.00	24.90	B	O
ATOM	6895	C	SER	B	422	93.504	4.708	36.889	1.00	30.48	B	C
ATOM	6896	O	SER	B	422	92.978	5.407	36.024	1.00	30.30	B	O

Figure 3

ATOM	6897	N	LYS	B	423	92.820	4.196	37.904	1.00	32.37	B	N
ATOM	6898	CA	LYS	B	423	91.394	4.496	38.040	1.00	34.89	B	C
ATOM	6899	CB	LYS	B	423	90.628	3.350	38.737	1.00	35.38	B	C
ATOM	6900	CG	LYS	B	423	91.266	2.788	40.010	1.00	37.42	B	C
ATOM	6901	CD	LYS	B	423	90.365	1.751	40.720	1.00	38.37	B	C
ATOM	6902	CE1	LYS	B	423	91.027	1.170	41.997	1.00	38.45	B	C
ATOM	6903	NZ	LYS	B	423	90.147	0.281	42.831	1.00	34.17	B	N
ATOM	6904	C	LYS	B	423	91.243	5.790	38.827	1.00	35.39	B	C
ATOM	6905	O	LYS	B	423	90.148	6.305	38.994	1.00	36.41	B	O
ATOM	6906	N	TYR	B	424	92.371	6.306	39.300	1.00	34.68	B	N
ATOM	6907	CA	TYR	B	424	92.412	7.545	40.051	1.00	33.24	B	C
ATOM	6908	CB	TYR	B	424	93.597	7.531	41.011	1.00	34.40	B	C
ATOM	6909	CG	TYR	B	424	93.394	6.657	42.219	1.00	36.45	B	C
ATOM	6910	CD1	TYR	B	424	93.288	7.216	43.485	1.00	36.10	B	C
ATOM	6911	CE1	TYR	B	424	93.077	6.429	44.605	1.00	37.83	B	C
ATOM	6912	CD2	TYR	B	424	93.283	5.275	42.099	1.00	38.45	B	C
ATOM	6913	CE2	TYR	B	424	93.069	4.476	43.218	1.00	37.18	B	C
ATOM	6914	CZ	TYR	B	424	92.968	5.067	44.469	1.00	38.08	B	C
ATOM	6915	OH	TYR	B	424	92.763	4.298	45.590	1.00	39.64	B	O
ATOM	6916	C	TYR	B	424	92.566	8.730	39.098	1.00	32.55	B	C
ATOM	6917	O	TYR	B	424	92.901	9.829	39.523	1.00	33.98	B	O
ATOM	6918	N	PHE	B	425	92.333	8.510	37.813	1.00	29.51	B	N
ATOM	6919	CA	PHE	B	425	92.466	9.566	36.823	1.00	26.42	B	C
ATOM	6920	CB	PHE	B	425	93.278	9.056	35.638	1.00	23.34	B	C
ATOM	6921	CG	PHE	B	425	93.542	10.083	34.563	1.00	20.04	B	C
ATOM	6922	CD1	PHE	B	425	94.505	11.071	34.734	1.00	18.30	B	C
ATOM	6923	CD2	PHE	B	425	92.901	9.985	33.333	1.00	17.75	B	C
ATOM	6924	CE1	PHE	B	425	94.840	11.939	33.683	1.00	17.32	B	C
ATOM	6925	CE2	PHE	B	425	93.226	10.845	32.274	1.00	16.80	B	C
ATOM	6926	CZ	PHE	B	425	94.196	11.816	32.452	1.00	17.29	B	C
ATOM	6927	C	PHE	B	425	91.094	9.976	36.345	1.00	28.04	B	C
ATOM	6928	O	PHE	B	425	90.554	9.387	35.409	1.00	29.86	B	O
ATOM	6929	N	MET	B	426	90.509	10.982	36.973	1.00	28.36	B	N
ATOM	6930	CA	MET	B	426	89.196	11.403	36.515	1.00	28.03	B	C
ATOM	6931	CB	MET	B	426	88.170	11.076	37.580	1.00	27.12	B	C
ATOM	6932	CG	MET	B	426	88.458	9.819	38.325	1.00	27.50	B	C
ATOM	6933	SD	MET	B	426	87.520	9.790	39.860	1.00	30.53	B	S
ATOM	6934	CE	MET	B	426	86.255	8.578	39.442	1.00	24.30	B	C
ATOM	6935	C	MET	B	426	89.123	12.894	36.200	1.00	27.24	B	C
ATOM	6936	O	MET	B	426	88.082	13.488	36.391	1.00	27.90	B	O
ATOM	6937	N	PRO	B	427	90.205	13.501	35.673	1.00	25.05	B	N
ATOM	6938	CD	PRO	B	427	91.154	12.865	34.749	1.00	25.21	B	C
ATOM	6939	CA	PRO	B	427	90.128	14.928	35.383	1.00	22.69	B	C
ATOM	6940	CB	PRO	B	427	91.351	15.168	34.530	1.00	23.47	B	C
ATOM	6941	CG	PRO	B	427	91.384	13.960	33.717	1.00	23.87	B	C
ATOM	6942	C	PRO	B	427	88.837	15.251	34.657	1.00	22.02	B	C
ATOM	6943	O	PRO	B	427	88.388	16.379	34.716	1.00	22.04	B	O
ATOM	6944	N	PHE	B	428	88.243	14.274	33.971	1.00	20.97	B	N
ATOM	6945	CA	PHE	B	428	86.966	14.515	33.310	1.00	20.27	B	C
ATOM	6946	CB	PHE	B	428	86.865	13.778	31.970	1.00	21.07	B	C
ATOM	6947	CG	PHE	B	428	88.016	14.015	31.040	1.00	21.66	B	C
ATOM	6948	CD1	PHE	B	428	89.068	13.120	30.981	1.00	23.83	B	C
ATOM	6949	CD2	PHE	B	428	88.046	15.130	30.212	1.00	23.47	B	C
ATOM	6950	CE1	PHE	B	428	90.141	13.329	30.108	1.00	26.04	B	C
ATOM	6951	CE2	PHE	B	428	89.119	15.347	29.332	1.00	22.62	B	C
ATOM	6952	CZ	PHE	B	428	90.169	14.444	29.282	1.00	23.34	B	C
ATOM	6953	C	PHE	B	428	85.847	13.999	34.222	1.00	20.68	B	C
ATOM	6954	O	PHE	B	428	84.736	13.742	33.783	1.00	20.26	B	O
ATOM	6955	N	SER	B	429	86.146	13.850	35.502	1.00	20.83	B	N
ATOM	6956	CA	SER	B	429	85.197	13.325	36.471	1.00	22.14	B	C
ATOM	6957	CB	SER	B	429	83.960	14.196	36.564	1.00	21.54	B	C
ATOM	6958	OG	SER	B	429	83.051	13.619	37.469	1.00	21.64	B	O
ATOM	6959	C	SER	B	429	84.789	11.909	36.118	1.00	24.07	B	C
ATOM	6960	O	SER	B	429	85.455	11.235	35.333	1.00	26.36	B	O
ATOM	6961	N	ALA	B	430	83.684	11.455	36.691	1.00	26.27	B	N
ATOM	6962	CA	ALA	B	430	83.221	10.103	36.445	1.00	29.60	B	C
ATOM	6963	CB	ALA	B	430	84.009	9.150	37.307	1.00	28.86	B	C
ATOM	6964	C	ALA	B	430	81.735	9.955	36.725	1.00	32.25	B	C
ATOM	6965	O	ALA	B	430	81.099	10.866	37.246	1.00	34.62	B	O
ATOM	6966	N	GLY	B	431	81.174	8.807	36.373	1.00	34.16	B	N
ATOM	6967	CA	GLY	B	431	79.763	8.606	36.637	1.00	37.75	B	C
ATOM	6968	C	GLY	B	431	78.832	8.904	35.479	1.00	39.79	B	C
ATOM	6969	O	GLY	B	431	79.277	9.154	34.355	1.00	39.21	B	O
ATOM	6970	N	LYS	B	432	77.529	8.885	35.752	1.00	41.76	B	N
ATOM	6971	CA	LYS	B	432	76.546	9.143	34.706	1.00	43.17	B	C

Figure 3

ATOM	6972	CB	LYS	B	432	75.139	8.796	35.207	1.00	44.81	B	C
ATOM	6973	CG	LYS	B	432	74.814	7.319	35.022	1.00	48.61	B	C
ATOM	6974	CD	LYS	B	432	73.379	6.986	35.396	1.00	51.62	B	C
ATOM	6975	CE	LYS	B	432	72.939	5.642	34.792	1.00	53.39	B	C
ATOM	6976	NZ	LYS	B	432	72.928	5.657	33.283	1.00	54.40	B	N
ATOM	6977	C	LYS	B	432	76.604	10.570	34.156	1.00	42.71	B	C
ATOM	6978	O	LYS	B	432	76.040	10.865	33.100	1.00	42.71	B	O
ATOM	6979	N	ARG	B	433	77.323	11.442	34.860	1.00	42.78	B	N
ATOM	6980	CA	ARG	B	433	77.463	12.840	34.449	1.00	41.46	B	C
ATOM	6981	CB	ARG	B	433	77.079	13.762	35.622	1.00	43.17	B	C
ATOM	6982	CG	ARG	B	433	75.597	14.148	35.671	1.00	45.43	B	C
ATOM	6983	CD	ARG	B	433	75.264	15.355	34.786	1.00	46.80	B	C
ATOM	6984	NE	ARG	B	433	73.843	15.691	34.847	1.00	48.92	B	N
ATOM	6985	CZ	ARG	B	433	73.324	16.883	34.549	1.00	51.22	B	C
ATOM	6986	NH1	ARG	B	433	74.105	17.886	34.165	1.00	50.24	B	N
ATOM	6987	NH2	ARG	B	433	72.008	17.066	34.625	1.00	52.87	B	N
ATOM	6988	C	ARG	B	433	78.870	13.174	33.936	1.00	39.70	B	C
ATOM	6989	O	ARG	B	433	79.230	14.343	33.817	1.00	40.07	B	O
ATOM	6990	N	ILE	B	434	79.650	12.141	33.629	1.00	36.43	B	N
ATOM	6991	CA	ILE	B	434	81.015	12.307	33.126	1.00	33.74	B	C
ATOM	6992	CB	ILE	B	434	81.611	10.983	32.713	1.00	34.82	B	C
ATOM	6993	CG2	ILE	B	434	80.910	10.483	31.465	1.00	35.49	B	C
ATOM	6994	CG1	ILE	B	434	83.077	11.151	32.365	1.00	34.75	B	C
ATOM	6995	CD1	ILE	B	434	83.726	9.837	32.042	1.00	35.41	B	C
ATOM	6996	C	ILE	B	434	81.054	13.174	31.879	1.00	31.17	B	C
ATOM	6997	O	ILE	B	434	80.137	13.135	31.072	1.00	31.21	B	O
ATOM	6998	N	CYS	B	435	82.143	13.910	31.701	1.00	27.74	B	N
ATOM	6999	CA	CYS	B	435	82.264	14.781	30.545	1.00	26.20	B	C
ATOM	7000	CB	CYS	B	435	83.665	15.335	30.370	1.00	25.71	B	C
ATOM	7001	SG	CYS	B	435	83.842	16.018	28.710	1.00	29.11	B	S
ATOM	7002	C	CYS	B	435	81.892	14.176	29.213	1.00	25.59	B	C
ATOM	7003	O	CYS	B	435	82.451	13.172	28.782	1.00	26.16	B	O
ATOM	7004	N	VAL	B	436	80.975	14.854	28.540	1.00	25.30	B	N
ATOM	7005	CA	VAL	B	436	80.528	14.444	27.232	1.00	24.68	B	C
ATOM	7006	CB	VAL	B	436	79.421	15.355	26.752	1.00	22.85	B	C
ATOM	7007	CG1	VAL	B	436	79.315	15.323	25.259	1.00	22.21	B	C
ATOM	7008	CG2	VAL	B	436	78.132	14.905	27.372	1.00	23.03	B	C
ATOM	7009	C	VAL	B	436	81.672	14.439	26.228	1.00	26.78	B	C
ATOM	7010	O	VAL	B	436	81.785	13.543	25.396	1.00	28.82	B	O
ATOM	7011	N	GLY	B	437	82.543	15.428	26.314	1.00	27.44	B	N
ATOM	7012	CA	GLY	B	437	83.658	15.477	25.389	1.00	29.21	B	C
ATOM	7013	C	GLY	B	437	84.927	14.775	25.835	1.00	30.37	B	C
ATOM	7014	O	GLY	B	437	86.030	15.201	25.458	1.00	31.48	B	O
ATOM	7015	N	GLU	B	438	84.804	13.709	26.625	1.00	30.25	B	N
ATOM	7016	CA	GLU	B	438	86.004	12.998	27.078	1.00	29.95	B	C
ATOM	7017	CB	GLU	B	438	85.632	11.757	27.895	1.00	32.05	B	C
ATOM	7018	CG	GLU	B	438	86.841	11.083	28.570	1.00	38.82	B	C
ATOM	7019	CD	GLU	B	438	86.458	9.850	29.370	1.00	42.64	B	C
ATOM	7020	OE1	GLU	B	438	87.345	9.303	30.090	1.00	43.98	B	O
ATOM	7021	OE2	GLU	B	438	85.270	9.414	29.283	1.00	43.52	B	O
ATOM	7022	C	GLU	B	438	86.895	12.571	25.909	1.00	27.57	B	C
ATOM	7023	O	GLU	B	438	88.097	12.811	25.910	1.00	25.24	B	O
ATOM	7024	N	ALA	B	439	86.285	11.939	24.913	1.00	27.48	B	N
ATOM	7025	CA	ALA	B	439	87.012	11.466	23.753	1.00	26.05	B	C
ATOM	7026	CB	ALA	B	439	86.081	10.702	22.841	1.00	27.14	B	C
ATOM	7027	C	ALA	B	439	87.661	12.599	22.984	1.00	26.34	B	C
ATOM	7028	O	ALA	B	439	88.882	12.655	22.843	1.00	27.58	B	O
ATOM	7029	N	LEU	B	440	86.826	13.498	22.473	1.00	26.54	B	N
ATOM	7030	CA	LEU	B	440	87.301	14.638	21.689	1.00	25.44	B	C
ATOM	7031	CB	LEU	B	440	86.184	15.653	21.491	1.00	24.53	B	C
ATOM	7032	CG	LEU	B	440	86.560	16.975	20.835	1.00	23.71	B	C
ATOM	7033	CD1	LEU	B	440	87.375	16.770	19.575	1.00	25.27	B	C
ATOM	7034	CD2	LEU	B	440	85.278	17.698	20.525	1.00	23.81	B	C
ATOM	7035	C	LEU	B	440	88.461	15.311	22.375	1.00	24.89	B	C
ATOM	7036	O	LEU	B	440	89.496	15.546	21.761	1.00	24.44	B	O
ATOM	7037	N	ALA	B	441	88.276	15.642	23.644	1.00	25.79	B	N
ATOM	7038	CA	ALA	B	441	89.336	16.286	24.384	1.00	27.32	B	C
ATOM	7039	CB	ALA	B	441	88.973	16.390	25.851	1.00	27.87	B	C
ATOM	7040	C	ALA	B	441	90.591	15.456	24.212	1.00	28.61	B	C
ATOM	7041	O	ALA	B	441	91.654	15.983	23.881	1.00	30.02	B	O
ATOM	7042	N	GLY	B	442	90.478	14.153	24.443	1.00	30.27	B	N
ATOM	7043	CA	GLY	B	442	91.636	13.274	24.285	1.00	30.82	B	C
ATOM	7044	C	GLY	B	442	92.369	13.620	22.999	1.00	30.60	B	C
ATOM	7045	O	GLY	B	442	93.561	13.921	22.998	1.00	31.18	B	O
ATOM	7046	N	MET	B	443	91.621	13.591	21.900	1.00	29.65	B	N

Figure 3

ATOM	7047	CA	MET	B	443	92.161	13.902	20.594	1.00	28.94	B	C
ATOM	7048	CB	MET	B	443	91.055	13.915	19.554	1.00	29.71	B	C
ATOM	7049	CG	MET	B	443	90.501	12.557	19.297	1.00	33.35	B	C
ATOM	7050	SD	MET	B	443	89.439	12.437	17.834	1.00	36.07	B	S
ATOM	7051	CE	MET	B	443	87.952	11.589	18.528	1.00	38.37	B	C
ATOM	7052	C	MET	B	443	92.899	15.225	20.518	1.00	28.77	B	C
ATOM	7053	O	MET	B	443	94.094	15.277	20.220	1.00	29.45	B	O
ATOM	7054	N	GLU	B	444	92.179	16.304	20.786	1.00	29.70	B	N
ATOM	7055	CA	GLU	B	444	92.754	17.629	20.701	1.00	29.12	B	C
ATOM	7056	CB	GLU	B	444	91.756	18.667	21.231	1.00	30.49	B	C
ATOM	7057	CG	GLU	B	444	90.416	18.572	20.501	1.00	34.74	B	C
ATOM	7058	CD	GLU	B	444	89.503	19.766	20.711	1.00	36.00	B	C
ATOM	7059	OE1	GLU	B	444	89.911	20.889	20.371	1.00	37.08	B	O
ATOM	7060	OE2	GLU	B	444	88.367	19.578	21.202	1.00	35.77	B	O
ATOM	7061	C	GLU	B	444	94.062	17.657	21.464	1.00	28.42	B	C
ATOM	7062	O	GLU	B	444	95.088	18.075	20.935	1.00	28.86	B	O
ATOM	7063	N	LEU	B	445	94.043	17.170	22.693	1.00	27.36	B	N
ATOM	7064	CA	LEU	B	445	95.248	17.165	23.502	1.00	27.39	B	C
ATOM	7065	CB	LEU	B	445	94.965	16.493	24.839	1.00	26.95	B	C
ATOM	7066	CG	LEU	B	445	94.088	17.472	25.595	1.00	28.28	B	C
ATOM	7067	CD1	LEU	B	445	93.734	16.936	26.963	1.00	29.67	B	C
ATOM	7068	CD2	LEU	B	445	94.844	18.796	25.711	1.00	28.23	B	C
ATOM	7069	C	LEU	B	445	96.417	16.492	22.819	1.00	27.31	B	C
ATOM	7070	O	LEU	B	445	97.497	17.082	22.652	1.00	28.19	B	O
ATOM	7071	N	PHE	B	446	96.185	15.250	22.418	1.00	26.05	B	N
ATOM	7072	CA	PHE	B	446	97.198	14.434	21.773	1.00	24.69	B	C
ATOM	7073	CB	PHE	B	446	96.674	13.006	21.604	1.00	24.91	B	C
ATOM	7074	CG	PHE	B	446	97.656	12.093	20.944	1.00	25.44	B	C
ATOM	7075	CD1	PHE	B	446	97.587	11.841	19.584	1.00	26.92	B	C
ATOM	7076	CD2	PHE	B	446	98.690	11.523	21.679	1.00	25.02	B	C
ATOM	7077	CE1	PHE	B	446	98.534	11.030	18.965	1.00	24.83	B	C
ATOM	7078	CE2	PHE	B	446	99.638	10.714	21.071	1.00	24.06	B	C
ATOM	7079	CZ	PHE	B	446	99.563	10.466	19.714	1.00	23.70	B	C
ATOM	7080	C	PHE	B	446	97.707	14.958	20.426	1.00	23.34	B	C
ATOM	7081	O	PHE	B	446	98.907	15.137	20.233	1.00	22.92	B	O
ATOM	7082	N	LEU	B	447	96.780	15.198	19.507	1.00	21.72	B	N
ATOM	7083	CA	LEU	B	447	97.123	15.670	18.186	1.00	20.26	B	C
ATOM	7084	CB	LEU	B	447	95.897	15.675	17.299	1.00	17.83	B	C
ATOM	7085	CG	LEU	B	447	95.265	14.289	17.243	1.00	17.96	B	C
ATOM	7086	CD1	LEU	B	447	94.062	14.274	16.311	1.00	17.82	B	C
ATOM	7087	CD2	LEU	B	447	96.299	13.310	16.767	1.00	17.08	B	C
ATOM	7088	C	LEU	B	447	97.754	17.030	18.189	1.00	22.05	B	C
ATOM	7089	O	LEU	B	447	98.775	17.231	17.545	1.00	23.67	B	O
ATOM	7090	N	PHE	B	448	97.170	17.982	18.899	1.00	21.86	B	N
ATOM	7091	CA	PHE	B	448	97.791	19.288	18.889	1.00	21.86	B	C
ATOM	7092	CB	PHE	B	448	96.997	20.325	19.654	1.00	19.53	B	C
ATOM	7093	CG	PHE	B	448	95.662	20.568	19.113	1.00	15.69	B	C
ATOM	7094	CD1	PHE	B	448	95.374	20.281	17.804	1.00	15.42	B	C
ATOM	7095	CD2	PHE	B	448	94.675	21.082	19.920	1.00	17.66	B	C
ATOM	7096	CE1	PHE	B	448	94.113	20.501	17.304	1.00	16.95	B	C
ATOM	7097	CE2	PHE	B	448	93.405	21.306	19.423	1.00	17.45	B	C
ATOM	7098	CZ	PHE	B	448	93.128	21.015	18.119	1.00	16.51	B	C
ATOM	7099	C	PHE	B	448	99.148	19.226	19.521	1.00	22.75	B	C
ATOM	7100	O	PHE	B	448	100.073	19.870	19.050	1.00	23.73	B	O
ATOM	7101	N	LEU	B	449	99.281	18.473	20.602	1.00	22.90	B	N
ATOM	7102	CA	LEU	B	449	100.576	18.452	21.245	1.00	24.75	B	C
ATOM	7103	CB	LEU	B	449	100.517	17.781	22.610	1.00	25.71	B	C
ATOM	7104	CG	LEU	B	449	99.903	18.550	23.769	1.00	27.57	B	C
ATOM	7105	CD1	LEU	B	449	100.223	17.754	25.013	1.00	28.10	B	C
ATOM	7106	CD2	LEU	B	449	100.477	19.966	23.894	1.00	26.89	B	C
ATOM	7107	C	LEU	B	449	101.668	17.801	20.412	1.00	25.53	B	C
ATOM	7108	O	LEU	B	449	102.745	18.363	20.223	1.00	25.62	B	O
ATOM	7109	N	THR	B	450	101.403	16.613	19.903	1.00	24.80	B	N
ATOM	7110	CA	THR	B	450	102.412	15.956	19.122	1.00	23.65	B	C
ATOM	7111	CB	THR	B	450	101.907	14.616	18.694	1.00	22.78	B	C
ATOM	7112	OG1	THR	B	450	100.762	14.785	17.862	1.00	23.06	B	O
ATOM	7113	CG2	THR	B	450	101.513	13.822	19.940	1.00	21.60	B	C
ATOM	7114	C	THR	B	450	102.722	16.880	17.959	1.00	25.01	B	C
ATOM	7115	O	THR	B	450	103.874	17.256	17.739	1.00	27.20	B	O
ATOM	7116	N	SER	B	451	101.686	17.301	17.252	1.00	26.00	B	N
ATOM	7117	CA	SER	B	451	101.862	18.196	16.117	1.00	27.09	B	C
ATOM	7118	CB	SER	B	451	100.523	18.750	15.675	1.00	29.61	B	C
ATOM	7119	OG	SER	B	451	100.235	18.293	14.368	1.00	33.86	B	O
ATOM	7120	C	SER	B	451	102.790	19.366	16.404	1.00	27.79	B	C
ATOM	7121	O	SER	B	451	103.691	19.646	15.629	1.00	30.04	B	O

Figure 3

ATOM	7122	N	ILE	B	452	102.556	20.055	17.510	1.00	26.02	B	N
ATOM	7123	CA	ILE	B	452	103.365	21.194	17.873	1.00	23.58	B	C
ATOM	7124	CB	ILE	B	452	102.863	21.766	19.191	1.00	22.95	B	C
ATOM	7125	CG2	ILE	B	452	103.916	22.682	19.813	1.00	22.34	B	C
ATOM	7126	CG1	ILE	B	452	101.505	22.422	18.962	1.00	22.89	B	C
ATOM	7127	CD1	ILE	B	452	100.820	22.859	20.219	1.00	22.31	B	C
ATOM	7128	C	ILE	B	452	104.825	20.826	18.012	1.00	24.41	B	C
ATOM	7129	O	ILE	B	452	105.709	21.551	17.566	1.00	24.75	B	O
ATOM	7130	N	LEU	B	453	105.062	19.687	18.645	1.00	26.62	B	N
ATOM	7131	CA	LEU	B	453	106.410	19.187	18.902	1.00	27.24	B	C
ATOM	7132	CB	LEU	B	453	106.361	18.191	20.058	1.00	26.43	B	C
ATOM	7133	CG	LEU	B	453	106.102	18.812	21.429	1.00	27.77	B	C
ATOM	7134	CD1	LEU	B	453	105.957	17.741	22.486	1.00	27.38	B	C
ATOM	7135	CD2	LEU	B	453	107.249	19.738	21.776	1.00	27.31	B	C
ATOM	7136	C	LEU	B	453	107.053	18.537	17.690	1.00	28.11	B	C
ATOM	7137	O	LEU	B	453	108.275	18.519	17.559	1.00	27.06	B	O
ATOM	7138	N	GLN	B	454	106.222	17.984	16.819	1.00	30.06	B	N
ATOM	7139	CA	GLN	B	454	106.733	17.348	15.624	1.00	34.08	B	C
ATOM	7140	CB	GLN	B	454	105.601	16.647	14.863	1.00	33.09	B	C
ATOM	7141	CG	GLN	B	454	105.856	16.491	13.365	1.00	33.28	B	C
ATOM	7142	CD	GLN	B	454	104.683	15.868	12.610	1.00	35.10	B	C
ATOM	7143	OE1	GLN	B	454	104.542	14.649	12.569	1.00	36.20	B	O
ATOM	7144	NE2	GLN	B	454	103.834	16.711	12.009	1.00	36.25	B	N
ATOM	7145	C	GLN	B	454	107.365	18.414	14.741	1.00	37.76	B	C
ATOM	7146	O	GLN	B	454	108.327	18.157	14.015	1.00	40.25	B	O
ATOM	7147	N	ASN	B	455	106.839	19.630	14.840	1.00	41.15	B	N
ATOM	7148	CA	ASN	B	455	107.295	20.755	14.015	1.00	41.20	B	C
ATOM	7149	CB	ASN	B	455	106.077	21.462	13.441	1.00	40.40	B	C
ATOM	7150	CG	ASN	B	455	105.489	20.718	12.276	1.00	39.54	B	C
ATOM	7151	OD1	ASN	B	455	105.979	20.835	11.149	1.00	42.97	B	O
ATOM	7152	ND2	ASN	B	455	104.435	19.941	12.527	1.00	38.06	B	N
ATOM	7153	C	ASN	B	455	108.185	21.789	14.665	1.00	42.11	B	C
ATOM	7154	O	ASN	B	455	108.989	22.438	13.986	1.00	43.32	B	O
ATOM	7155	N	PHE	B	456	108.037	21.951	15.972	1.00	43.44	B	N
ATOM	7156	CA	PHE	B	456	108.803	22.954	16.691	1.00	44.37	B	C
ATOM	7157	CB	PHE	B	456	107.887	24.061	17.187	1.00	43.34	B	C
ATOM	7158	CG	PHE	B	456	106.995	24.615	16.138	1.00	43.01	B	C
ATOM	7159	CD1	PHE	B	456	107.436	25.634	15.310	1.00	43.21	B	C
ATOM	7160	CD2	PHE	B	456	105.708	24.114	15.977	1.00	41.91	B	C
ATOM	7161	CE1	PHE	B	456	106.613	26.148	14.335	1.00	41.89	B	C
ATOM	7162	CE2	PHE	B	456	104.867	24.620	15.000	1.00	43.45	B	C
ATOM	7163	CZ	PHE	B	456	105.320	25.644	14.175	1.00	43.35	B	C
ATOM	7164	C	PHE	B	456	109.503	22.424	17.902	1.00	45.67	B	C
ATOM	7165	O	PHE	B	456	109.087	21.438	18.502	1.00	46.42	B	O
ATOM	7166	N	ASN	B	457	110.558	23.127	18.272	1.00	46.96	B	N
ATOM	7167	CA	ASN	B	457	111.326	22.809	19.454	1.00	48.94	B	C
ATOM	7168	CB	ASN	B	457	112.808	22.727	19.097	1.00	49.81	B	C
ATOM	7169	CG	ASN	B	457	113.381	21.342	19.306	1.00	50.62	B	C
ATOM	7170	OD1	ASN	B	457	113.393	20.828	20.430	1.00	51.87	B	O
ATOM	7171	ND2	ASN	B	457	113.863	20.728	18.226	1.00	49.48	B	N
ATOM	7172	C	ASN	B	457	111.059	23.995	20.382	1.00	50.42	B	C
ATOM	7173	O	ASN	B	457	111.473	25.105	20.095	1.00	51.82	B	O
ATOM	7174	N	LEU	B	458	110.351	23.775	21.480	1.00	51.12	B	N
ATOM	7175	CA	LEU	B	458	110.053	24.879	22.379	1.00	52.15	B	C
ATOM	7176	CB	LEU	B	458	109.108	24.413	23.462	1.00	49.78	B	C
ATOM	7177	CG	LEU	B	458	108.017	23.586	22.820	1.00	47.91	B	C
ATOM	7178	CD1	LEU	B	458	107.164	23.013	23.911	1.00	48.30	B	C
ATOM	7179	CD2	LEU	B	458	107.196	24.429	21.857	1.00	47.96	B	C
ATOM	7180	C	LEU	B	458	111.289	25.478	23.023	1.00	54.45	B	C
ATOM	7181	O	LEU	B	458	112.228	24.761	23.371	1.00	54.89	B	O
ATOM	7182	N	LYS	B	459	111.272	26.798	23.190	1.00	57.91	B	N
ATOM	7183	CA	LYS	B	459	112.383	27.510	23.813	1.00	61.56	B	C
ATOM	7184	CB	LYS	B	459	113.462	27.840	22.774	1.00	62.67	B	C
ATOM	7185	CG	LYS	B	459	114.737	28.445	23.377	1.00	65.44	B	C
ATOM	7186	CD	LYS	B	459	115.753	28.850	22.303	1.00	66.44	B	C
ATOM	7187	CE	LYS	B	459	117.037	29.450	22.903	1.00	67.09	B	C
ATOM	7188	NZ	LYS	B	459	116.789	30.613	23.822	1.00	66.24	B	N
ATOM	7189	C	LYS	B	459	111.930	28.797	24.506	1.00	62.98	B	C
ATOM	7190	O	LYS	B	459	111.331	29.681	23.890	1.00	62.23	B	O
ATOM	7191	N	SER	B	460	112.231	28.894	25.796	1.00	66.31	B	N
ATOM	7192	CA	SER	B	460	111.873	30.064	26.586	1.00	69.11	B	C
ATOM	7193	CB	SER	B	460	111.682	29.677	28.062	1.00	69.18	B	C
ATOM	7194	OG	SER	B	460	111.291	30.792	28.848	1.00	69.48	B	O
ATOM	7195	C	SER	B	460	112.991	31.086	26.474	1.00	71.49	B	C
ATOM	7196	O	SER	B	460	113.945	30.900	25.714	1.00	72.05	B	O

Figure 3

ATOM	7197	N	LEU	B	461	112.870	32.167	27.234	1.00	74.03	B	N
ATOM	7198	CA	LEU	B	461	113.881	33.214	27.232	1.00	76.04	B	C
ATOM	7199	CB	LEU	B	461	113.414	34.411	26.405	1.00	76.87	B	C
ATOM	7200	CG	LEU	B	461	112.084	35.012	26.867	1.00	78.16	B	C
ATOM	7201	CD1	LEU	B	461	112.259	36.494	27.193	1.00	78.81	B	C
ATOM	7202	CD2	LEU	B	461	111.043	34.808	25.778	1.00	79.26	B	C
ATOM	7203	C	LEU	B	461	114.174	33.665	28.659	1.00	76.89	B	C
ATOM	7204	O	LEU	B	461	114.692	34.760	28.872	1.00	77.43	B	O
ATOM	7205	N	VAL	B	462	113.832	32.830	29.636	1.00	77.27	B	N
ATOM	7206	CA	VAL	B	462	114.091	33.183	31.026	1.00	76.69	B	C
ATOM	7207	CB	VAL	B	462	112.785	33.749	31.730	1.00	76.77	B	C
ATOM	7208	CG1	VAL	B	462	111.732	32.674	31.874	1.00	76.09	B	C
ATOM	7209	CG2	VAL	B	462	113.130	34.369	33.088	1.00	76.48	B	C
ATOM	7210	C	VAL	B	462	114.685	32.009	31.807	1.00	76.46	B	C
ATOM	7211	O	VAL	B	462	114.745	32.043	33.035	1.00	76.54	B	O
ATOM	7212	N	ASP	B	463	115.144	30.982	31.090	1.00	75.64	B	N
ATOM	7213	CA	ASP	B	463	115.758	29.819	31.734	1.00	75.43	B	C
ATOM	7214	CB	ASP	B	463	116.994	30.268	32.533	1.00	74.51	B	C
ATOM	7215	CG	ASP	B	463	117.584	29.157	33.390	1.00	75.86	B	C
ATOM	7216	OD1	ASP	B	463	117.967	28.096	32.834	1.00	76.62	B	O
ATOM	7217	OD2	ASP	B	463	117.675	29.346	34.624	1.00	75.97	B	O
ATOM	7218	C	ASP	B	463	114.768	29.085	32.654	1.00	75.02	B	C
ATOM	7219	O	ASP	B	463	114.370	29.608	33.702	1.00	75.06	B	O
ATOM	7220	N	PRO	B	464	114.389	27.844	32.288	1.00	73.77	B	N
ATOM	7221	CD	PRO	B	464	115.185	26.995	31.380	1.00	73.62	B	C
ATOM	7222	CA	PRO	B	464	113.446	27.010	33.049	1.00	72.81	B	C
ATOM	7223	CB	PRO	B	464	113.680	25.611	32.474	1.00	72.24	B	C
ATOM	7224	CG	PRO	B	464	115.133	25.653	32.087	1.00	72.60	B	C
ATOM	7225	C	PRO	B	464	113.663	27.040	34.563	1.00	72.06	B	C
ATOM	7226	O	PRO	B	464	112.710	27.178	35.349	1.00	73.87	B	O
ATOM	7227	N	LYS	B	465	114.931	26.894	34.946	1.00	71.15	B	N
ATOM	7228	CA	LYS	B	465	115.381	26.879	36.347	1.00	69.30	B	C
ATOM	7229	CB	LYS	B	465	116.891	27.220	36.402	1.00	69.35	B	C
ATOM	7230	CG	LYS	B	465	117.799	26.166	37.082	1.00	68.46	B	C
ATOM	7231	CD	LYS	B	465	117.611	26.107	38.624	1.00	67.14	B	C
ATOM	7232	CE	LYS	B	465	118.490	25.023	39.307	1.00	65.46	B	C
ATOM	7233	NZ	LYS	B	465	118.399	25.015	40.807	1.00	62.43	B	N
ATOM	7234	C	LYS	B	465	114.588	27.821	37.272	1.00	68.12	B	C
ATOM	7235	O	LYS	B	465	114.495	27.579	38.484	1.00	68.51	B	O
ATOM	7236	N	ASN	B	466	114.015	28.884	36.694	1.00	67.02	B	N
ATOM	7237	CA	ASN	B	466	113.230	29.882	37.444	1.00	66.90	B	C
ATOM	7238	CB	ASN	B	466	113.671	31.309	37.050	1.00	66.33	B	C
ATOM	7239	CG	ASN	B	466	115.188	31.519	37.171	1.00	68.89	B	C
ATOM	7240	OD1	ASN	B	466	115.758	31.456	38.271	1.00	67.33	B	O
ATOM	7241	ND2	ASN	B	466	115.845	31.763	36.036	1.00	67.92	B	N
ATOM	7242	C	ASN	B	466	111.699	29.742	37.260	1.00	66.63	B	C
ATOM	7243	O	ASN	B	466	111.007	29.318	38.191	1.00	68.29	B	O
ATOM	7244	N	LEU	B	467	111.191	30.081	36.066	1.00	65.79	B	N
ATOM	7245	CA	LEU	B	467	109.754	30.027	35.747	1.00	62.78	B	C
ATOM	7246	CB	LEU	B	467	109.548	29.772	34.246	1.00	62.38	B	C
ATOM	7247	CG	LEU	B	467	110.468	28.729	33.611	1.00	62.15	B	C
ATOM	7248	CD1	LEU	B	467	109.765	27.398	33.578	1.00	62.11	B	C
ATOM	7249	CD2	LEU	B	467	110.844	29.149	32.195	1.00	62.37	B	C
ATOM	7250	C	LEU	B	467	108.944	29.031	36.572	1.00	62.40	B	C
ATOM	7251	O	LEU	B	467	109.138	27.814	36.506	1.00	62.19	B	O
ATOM	7252	N	ASP	B	468	108.042	29.603	37.363	1.00	62.67	B	N
ATOM	7253	CA	ASP	B	468	107.133	28.908	38.278	1.00	62.68	B	C
ATOM	7254	CB	ASP	B	468	106.541	29.970	39.222	1.00	63.53	B	C
ATOM	7255	CG	ASP	B	468	105.608	29.399	40.271	1.00	65.71	B	C
ATOM	7256	OD1	ASP	B	468	104.553	28.828	39.905	1.00	68.02	B	O
ATOM	7257	OD2	ASP	B	468	105.934	29.533	41.474	1.00	64.88	B	O
ATOM	7258	C	ASP	B	468	106.032	28.194	37.497	1.00	61.35	B	C
ATOM	7259	O	ASP	B	468	105.441	28.780	36.593	1.00	61.29	B	O
ATOM	7260	N	THR	B	469	105.759	26.937	37.849	1.00	60.82	B	N
ATOM	7261	CA	THR	B	469	104.724	26.139	37.178	1.00	60.21	B	C
ATOM	7262	CB	THR	B	469	105.240	24.768	36.746	1.00	59.49	B	C
ATOM	7263	OG1	THR	B	469	105.300	23.917	37.899	1.00	60.77	B	O
ATOM	7264	CG2	THR	B	469	106.615	24.870	36.125	1.00	58.97	B	C
ATOM	7265	C	THR	B	469	103.564	25.847	38.120	1.00	60.25	B	C
ATOM	7266	O	THR	B	469	102.578	25.221	37.719	1.00	59.69	B	O
ATOM	7267	N	THR	B	470	103.722	26.257	39.379	1.00	61.42	B	N
ATOM	7268	CA	THR	B	470	102.716	26.063	40.429	1.00	62.83	B	C
ATOM	7269	CB	THR	B	470	103.205	26.649	41.781	1.00	63.25	B	C
ATOM	7270	OG1	THR	B	470	104.506	26.134	42.100	1.00	64.03	B	O
ATOM	7271	CG2	THR	B	470	102.239	26.288	42.905	1.00	64.09	B	C

Figure 3

ATOM	7272	C	THR	B	470	101.427	26.782	40.039	1.00	61.86	B	C
ATOM	7273	O	THR	B	470	101.409	28.008	39.936	1.00	61.70	B	O
ATOM	7274	N	PRO	B	471	100.326	26.029	39.842	1.00	61.74	B	N
ATOM	7275	CD	PRO	B	471	100.188	24.626	40.272	1.00	62.91	B	C
ATOM	7276	CA	PRO	B	471	99.017	26.574	39.453	1.00	62.45	B	C
ATOM	7277	CB	PRO	B	471	98.058	25.403	39.683	1.00	62.45	B	C
ATOM	7278	CG	PRO	B	471	98.926	24.199	39.550	1.00	63.34	B	C
ATOM	7279	C	PRO	B	471	98.624	27.775	40.285	1.00	62.29	B	C
ATOM	7280	O	PRO	B	471	99.077	27.924	41.417	1.00	63.24	B	O
ATOM	7281	N	VAL	B	472	97.786	28.633	39.720	1.00	62.33	B	N
ATOM	7282	CA	VAL	B	472	97.302	29.807	40.428	1.00	63.26	B	C
ATOM	7283	CB	VAL	B	472	97.679	31.096	39.659	1.00	63.09	B	C
ATOM	7284	CG1	VAL	B	472	96.956	32.301	40.238	1.00	63.58	B	C
ATOM	7285	CG2	VAL	B	472	99.188	31.308	39.750	1.00	62.60	B	C
ATOM	7286	C	VAL	B	472	95.794	29.599	40.513	1.00	63.75	B	C
ATOM	7287	O	VAL	B	472	95.076	29.759	39.534	1.00	62.70	B	O
ATOM	7288	N	VAL	B	473	95.331	29.205	41.692	1.00	67.22	B	N
ATOM	7289	CA	VAL	B	473	93.918	28.929	41.900	1.00	71.16	B	C
ATOM	7290	CB	VAL	B	473	93.716	27.835	42.989	1.00	71.75	B	C
ATOM	7291	CG1	VAL	B	473	92.236	27.515	43.140	1.00	72.65	B	C
ATOM	7292	CG2	VAL	B	473	94.502	26.569	42.637	1.00	72.53	B	C
ATOM	7293	C	VAL	B	473	93.093	30.141	42.320	1.00	73.28	B	C
ATOM	7294	O	VAL	B	473	93.541	30.968	43.132	1.00	74.08	B	O
ATOM	7295	N	ASN	B	474	91.883	30.236	41.761	1.00	74.94	B	N
ATOM	7296	CA	ASN	B	474	90.926	31.309	42.080	1.00	75.80	B	C
ATOM	7297	CB	ASN	B	474	91.056	32.482	41.084	1.00	76.75	B	C
ATOM	7298	CG	ASN	B	474	92.402	33.226	41.213	1.00	77.74	B	C
ATOM	7299	OD1	ASN	B	474	93.259	33.142	40.326	1.00	78.76	B	O
ATOM	7300	ND2	ASN	B	474	92.584	33.952	42.323	1.00	76.38	B	N
ATOM	7301	C	ASN	B	474	89.492	30.754	42.108	1.00	75.53	B	C
ATOM	7302	O	ASN	B	474	88.770	30.773	41.108	1.00	74.04	B	O
ATOM	7303	N	GLY	B	475	89.108	30.255	43.282	1.00	76.14	B	N
ATOM	7304	CA	GLY	B	475	87.783	29.690	43.489	1.00	77.22	B	C
ATOM	7305	C	GLY	B	475	87.685	28.209	43.137	1.00	77.26	B	C
ATOM	7306	O	GLY	B	475	88.383	27.365	43.723	1.00	77.82	B	O
ATOM	7307	N	PHE	B	476	86.798	27.900	42.184	1.00	76.31	B	N
ATOM	7308	CA	PHE	B	476	86.580	26.528	41.691	1.00	74.61	B	C
ATOM	7309	CB	PHE	B	476	85.082	26.263	41.402	1.00	75.83	B	C
ATOM	7310	CG	PHE	B	476	84.161	26.362	42.610	1.00	75.67	B	C
ATOM	7311	CD1	PHE	B	476	82.783	26.566	42.414	1.00	75.97	B	C
ATOM	7312	CD2	PHE	B	476	84.644	26.253	43.916	1.00	74.46	B	C
ATOM	7313	CE1	PHE	B	476	81.904	26.669	43.491	1.00	75.55	B	C
ATOM	7314	CE2	PHE	B	476	83.769	26.354	45.010	1.00	73.63	B	C
ATOM	7315	CZ	PHE	B	476	82.398	26.563	44.799	1.00	74.44	B	C
ATOM	7316	C	PHE	B	476	87.372	26.254	40.380	1.00	72.85	B	C
ATOM	7317	O	PHE	B	476	87.069	25.289	39.663	1.00	73.17	B	O
ATOM	7318	N	ALA	B	477	88.354	27.106	40.066	1.00	68.92	B	N
ATOM	7319	CA	ALA	B	477	89.195	26.939	38.869	1.00	64.79	B	C
ATOM	7320	CB	ALA	B	477	88.581	27.663	37.642	1.00	64.07	B	C
ATOM	7321	C	ALA	B	477	90.615	27.455	39.121	1.00	62.07	B	C
ATOM	7322	O	ALA	B	477	90.845	28.238	40.050	1.00	61.12	B	O
ATOM	7323	N	SER	B	478	91.554	26.994	38.291	1.00	58.15	B	N
ATOM	7324	CA	SER	B	478	92.964	27.377	38.363	1.00	54.58	B	C
ATOM	7325	CB	SER	B	478	93.770	26.341	39.150	1.00	55.30	B	C
ATOM	7326	OG	SER	B	478	93.542	25.036	38.650	1.00	57.14	B	O
ATOM	7327	C	SER	B	478	93.498	27.468	36.939	1.00	50.41	B	C
ATOM	7328	O	SER	B	478	93.005	26.791	36.040	1.00	50.09	B	O
ATOM	7329	N	VAL	B	479	94.489	28.325	36.737	1.00	45.66	B	N
ATOM	7330	CA	VAL	B	479	95.078	28.512	35.428	1.00	43.43	B	C
ATOM	7331	CB	VAL	B	479	94.515	29.742	34.737	1.00	43.28	B	C
ATOM	7332	CG1	VAL	B	479	93.027	29.567	34.503	1.00	44.04	B	C
ATOM	7333	CG2	VAL	B	479	94.781	30.959	35.600	1.00	43.26	B	C
ATOM	7334	C	VAL	B	479	96.538	28.748	35.648	1.00	40.58	B	C
ATOM	7335	O	VAL	B	479	96.952	29.067	36.751	1.00	41.38	B	O
ATOM	7336	N	PRO	B	480	97.351	28.598	34.601	1.00	37.31	B	N
ATOM	7337	CD	PRO	B	480	97.030	28.189	33.227	1.00	36.99	B	C
ATOM	7338	CA	PRO	B	480	98.785	28.814	34.729	1.00	37.96	B	C
ATOM	7339	CB	PRO	B	480	99.339	28.136	33.495	1.00	35.71	B	C
ATOM	7340	CG	PRO	B	480	98.318	28.535	32.482	1.00	35.83	B	C
ATOM	7341	C	PRO	B	480	99.111	30.301	34.718	1.00	37.75	B	C
ATOM	7342	O	PRO	B	480	98.275	31.151	34.337	1.00	37.41	B	O
ATOM	7343	N	PRO	B	481	100.341	30.634	35.130	1.00	35.85	B	N
ATOM	7344	CD	PRO	B	481	101.362	29.757	35.727	1.00	36.77	B	C
ATOM	7345	CA	PRO	B	481	100.793	32.015	35.162	1.00	37.26	B	C
ATOM	7346	CB	PRO	B	481	102.080	31.924	35.959	1.00	36.28	B	C

Figure 3

ATOM	7347	CG	PRO B 481	102.601	30.578	35.577	1.00	35.98	B	C
ATOM	7348	C	PRO B 481	101.062	32.454	33.740	1.00	37.58	B	C
ATOM	7349	O	PRO B 481	100.795	31.732	32.779	1.00	38.93	B	O
ATOM	7350	N	PHE B 482	101.613	33.640	33.607	1.00	37.45	B	N
ATOM	7351	CA	PHE B 482	101.917	34.121	32.300	1.00	38.65	B	C
ATOM	7352	CB	PHE B 482	101.685	35.621	32.242	1.00	41.63	B	C
ATOM	7353	CG	PHE B 482	102.477	36.308	31.193	1.00	44.00	B	C
ATOM	7354	CD1	PHE B 482	103.808	36.634	31.431	1.00	45.84	B	C
ATOM	7355	CD2	PHE B 482	101.908	36.632	29.968	1.00	44.53	B	C
ATOM	7356	CE1	PHE B 482	104.569	37.276	30.468	1.00	47.38	B	C
ATOM	7357	CE2	PHE B 482	102.661	37.279	28.988	1.00	46.45	B	C
ATOM	7358	CZ	PHE B 482	103.998	37.601	29.241	1.00	47.08	B	C
ATOM	7359	C	PHE B 482	103.350	33.758	31.986	1.00	38.80	B	C
ATOM	7360	O	PHE B 482	104.218	33.720	32.871	1.00	38.59	B	O
ATOM	7361	N	TYR B 483	103.586	33.474	30.712	1.00	39.07	B	N
ATOM	7362	CA	TYR B 483	104.913	33.107	30.252	1.00	39.61	B	C
ATOM	7363	CB	TYR B 483	105.218	31.670	30.655	1.00	38.85	B	C
ATOM	7364	CG	TYR B 483	104.461	30.651	29.844	1.00	38.09	B	C
ATOM	7365	CD1	TYR B 483	105.038	30.073	28.713	1.00	39.05	B	C
ATOM	7366	CE1	TYR B 483	104.335	29.182	27.927	1.00	39.62	B	C
ATOM	7367	CD2	TYR B 483	103.157	30.304	30.171	1.00	36.85	B	C
ATOM	7368	CE2	TYR B 483	102.441	29.413	29.391	1.00	37.42	B	C
ATOM	7369	CZ	TYR B 483	103.032	28.860	28.275	1.00	39.46	B	C
ATOM	7370	OH	TYR B 483	102.318	27.992	27.485	1.00	43.22	B	O
ATOM	7371	C	TYR B 483	104.991	33.244	28.743	1.00	40.22	B	C
ATOM	7372	O	TYR B 483	103.973	33.282	28.050	1.00	39.29	B	O
ATOM	7373	N	GLN B 484	106.211	33.318	28.246	1.00	42.76	B	N
ATOM	7374	CA	GLN B 484	106.422	33.455	26.824	1.00	46.91	B	C
ATOM	7375	CB	GLN B 484	107.002	34.831	26.497	1.00	50.30	B	C
ATOM	7376	CG	GLN B 484	106.132	36.012	26.916	1.00	55.40	B	C
ATOM	7377	CD	GLN B 484	106.755	37.347	26.506	1.00	56.71	B	C
ATOM	7378	OE1	GLN B 484	107.887	37.671	26.917	1.00	58.03	B	O
ATOM	7379	NE2	GLN B 484	106.024	38.129	25.697	1.00	56.99	B	N
ATOM	7380	C	GLN B 484	107.380	32.382	26.335	1.00	48.19	B	C
ATOM	7381	O	GLN B 484	108.132	31.804	27.126	1.00	49.64	B	O
ATOM	7382	N	LEU B 485	107.361	32.136	25.026	1.00	47.76	B	N
ATOM	7383	CA	LEU B 485	108.226	31.133	24.421	1.00	49.21	B	C
ATOM	7384	CB	LEU B 485	107.642	29.749	24.666	1.00	50.10	B	C
ATOM	7385	CG	LEU B 485	106.409	29.358	23.836	1.00	51.73	B	C
ATOM	7386	CD1	LEU B 485	106.025	27.937	24.210	1.00	53.70	B	C
ATOM	7387	CD2	LEU B 485	105.242	30.316	24.081	1.00	52.88	B	C
ATOM	7388	C	LEU B 485	108.375	31.348	22.919	1.00	49.95	B	C
ATOM	7389	O	LEU B 485	107.539	31.994	22.282	1.00	49.66	B	O
ATOM	7390	N	CYS B 486	109.444	30.808	22.349	1.00	50.76	B	N
ATOM	7391	CA	CYS B 486	109.645	30.931	20.911	1.00	52.34	B	C
ATOM	7392	CB	CYS B 486	111.079	31.389	20.588	1.00	55.46	B	C
ATOM	7393	SG	CYS B 486	111.599	32.987	21.316	1.00	63.36	B	S
ATOM	7394	C	CYS B 486	109.391	29.571	20.254	1.00	51.17	B	C
ATOM	7395	O	CYS B 486	109.920	28.553	20.700	1.00	52.54	B	O
ATOM	7396	N	PHE B 487	108.567	29.549	19.210	1.00	48.15	B	N
ATOM	7397	CA	PHE B 487	108.299	28.309	18.504	1.00	44.82	B	C
ATOM	7398	CB	PHE B 487	106.883	28.298	17.921	1.00	40.77	B	C
ATOM	7399	CG	PHE B 487	105.815	28.020	18.930	1.00	36.20	B	C
ATOM	7400	CD1	PHE B 487	105.383	29.014	19.790	1.00	35.43	B	C
ATOM	7401	CD2	PHE B 487	105.256	26.752	19.039	1.00	35.36	B	C
ATOM	7402	CE1	PHE B 487	104.414	28.752	20.742	1.00	32.98	B	C
ATOM	7403	CE2	PHE B 487	104.287	26.484	19.992	1.00	33.51	B	C
ATOM	7404	CZ	PHE B 487	103.868	27.488	20.841	1.00	32.62	B	C
ATOM	7405	C	PHE B 487	109.307	28.141	17.375	1.00	44.87	B	C
ATOM	7406	O	PHE B 487	108.975	28.383	16.218	1.00	45.28	B	O
ATOM	7407	N	ILE B 488	110.536	27.749	17.716	1.00	45.26	B	N
ATOM	7408	CA	ILE B 488	111.583	27.536	16.717	1.00	46.28	B	C
ATOM	7409	CB	ILE B 488	112.966	27.180	17.351	1.00	44.71	B	C
ATOM	7410	CG2	ILE B 488	113.911	26.638	16.285	1.00	43.31	B	C
ATOM	7411	CG1	ILE B 488	113.590	28.406	18.004	1.00	43.75	B	C
ATOM	7412	CD1	ILE B 488	112.781	28.945	19.147	1.00	45.25	B	C
ATOM	7413	C	ILE B 488	111.185	26.356	15.844	1.00	49.07	B	C
ATOM	7414	O	ILE B 488	110.580	25.401	16.331	1.00	50.33	B	O
ATOM	7415	N	PRO B 489	111.511	26.411	14.543	1.00	51.37	B	N
ATOM	7416	CD	PRO B 489	111.936	27.631	13.838	1.00	52.69	B	C
ATOM	7417	CA	PRO B 489	111.203	25.349	13.583	1.00	52.99	B	C
ATOM	7418	CB	PRO B 489	111.625	25.950	12.252	1.00	53.87	B	C
ATOM	7419	CG	PRO B 489	111.396	27.398	12.450	1.00	53.92	B	C
ATOM	7420	C	PRO B 489	112.004	24.097	13.910	1.00	53.73	B	C
ATOM	7421	O	PRO B 489	112.069	23.677	15.064	1.00	55.87	B	O

Figure 3

ATOM	7422	N	VAL	B	490	112.648	23.527	12.900	1.00	54.08	B	N
ATOM	7423	CA	VAL	B	490	113.407	22.309	13.105	1.00	53.53	B	C
ATOM	7424	CB	VAL	B	490	112.534	21.110	12.662	1.00	53.56	B	C
ATOM	7425	CG1	VAL	B	490	111.437	20.863	13.685	1.00	51.64	B	C
ATOM	7426	CG2	VAL	B	490	111.886	21.418	11.285	1.00	53.09	B	C
ATOM	7427	C	VAL	B	490	114.785	22.282	12.408	1.00	54.58	B	C
ATOM	7428	O	VAL	B	490	114.851	22.385	11.147	1.00	54.44	B	O
ATOM	7429	OXT	VAL	B	490	115.793	22.143	13.156	1.00	53.98	B	O
TER	7429		VAL	B	490							
ATOM	7430	FE1	HEM	B	501	84.057	18.537	29.656	1.00	16.67	B	Fe
ATOM	7431	N2	HEM	B	501	83.673	18.710	31.784	1.00	15.91	B	N
ATOM	7432	N3	HEM	B	501	86.120	18.897	29.977	1.00	12.57	B	N
ATOM	7433	N4	HEM	B	501	84.233	19.007	27.593	1.00	11.85	B	N
ATOM	7434	N5	HEM	B	501	81.852	18.831	29.321	1.00	15.30	B	N
ATOM	7435	C6	HEM	B	501	82.551	18.153	32.325	1.00	17.80	B	C
ATOM	7436	C7	HEM	B	501	82.881	17.683	33.681	1.00	18.40	B	C
ATOM	7437	C8	HEM	B	501	84.220	17.838	33.864	1.00	16.82	B	C
ATOM	7438	C9	HEM	B	501	84.819	18.408	32.649	1.00	15.63	B	C
ATOM	7439	C10	HEM	B	501	86.811	18.802	31.109	1.00	13.53	B	C
ATOM	7440	C11	HEM	B	501	88.217	18.925	30.807	1.00	13.53	B	C
ATOM	7441	C12	HEM	B	501	88.338	19.043	29.479	1.00	13.52	B	C
ATOM	7442	C13	HEM	B	501	87.022	19.071	28.885	1.00	13.83	B	C
ATOM	7443	C14	HEM	B	501	85.396	19.244	26.950	1.00	13.88	B	C
ATOM	7444	C15	HEM	B	501	85.112	19.472	25.546	1.00	14.61	B	C
ATOM	7445	C16	HEM	B	501	83.792	19.498	25.365	1.00	16.46	B	C
ATOM	7446	C17	HEM	B	501	83.140	19.239	26.660	1.00	14.40	B	C
ATOM	7447	C18	HEM	B	501	81.143	19.049	28.212	1.00	14.87	B	C
ATOM	7448	C19	HEM	B	501	79.712	19.039	28.550	1.00	15.38	B	C
ATOM	7449	C20	HEM	B	501	79.593	18.619	29.821	1.00	16.21	B	C
ATOM	7450	C21	HEM	B	501	80.942	18.502	30.403	1.00	16.79	B	C
ATOM	7451	C22	HEM	B	501	81.225	18.118	31.671	1.00	16.79	B	C
ATOM	7452	C23	HEM	B	501	86.158	18.572	32.415	1.00	14.27	B	C
ATOM	7453	C24	HEM	B	501	86.757	19.230	27.590	1.00	14.50	B	C
ATOM	7454	C25	HEM	B	501	81.792	19.278	26.894	1.00	17.30	B	C
ATOM	7455	C26	HEM	B	501	85.019	17.724	35.112	1.00	15.35	B	C
ATOM	7456	C27	HEM	B	501	81.853	16.873	34.514	1.00	17.00	B	C
ATOM	7457	C28	HEM	B	501	81.126	17.508	35.714	1.00	21.69	B	C
ATOM	7458	C29	HEM	B	501	80.631	16.370	36.660	1.00	21.98	B	C
ATOM	7459	O30	HEM	B	501	79.540	15.750	36.172	1.00	24.24	B	O
ATOM	7460	O31	HEM	B	501	81.186	16.038	37.638	1.00	21.51	B	O
ATOM	7461	C32	HEM	B	501	89.294	18.594	31.848	1.00	13.95	B	C
ATOM	7462	C33	HEM	B	501	89.534	19.429	28.639	1.00	17.36	B	C
ATOM	7463	C34	HEM	B	501	90.648	18.406	28.616	1.00	19.30	B	C
ATOM	7464	C35	HEM	B	501	86.207	19.898	24.590	1.00	11.84	B	C
ATOM	7465	C36	HEM	B	501	82.970	19.411	24.090	1.00	16.89	B	C
ATOM	7466	C37	HEM	B	501	82.224	18.080	23.860	1.00	21.33	B	C
ATOM	7467	C38	HEM	B	501	78.623	19.215	27.527	1.00	13.95	B	C
ATOM	7468	C39	HEM	B	501	78.327	18.448	30.673	1.00	15.82	B	C
ATOM	7469	C40	HEM	B	501	78.234	17.047	31.318	1.00	21.57	B	C
ATOM	7470	C41	HEM	B	501	76.826	16.714	31.827	1.00	25.67	B	C
ATOM	7471	O42	HEM	B	501	76.106	15.921	31.309	1.00	28.06	B	O
ATOM	7472	O43	HEM	B	501	76.505	17.425	32.917	1.00	28.44	B	O
END												

297/514

Figure 4

Table 7

ATOM	1474	N	ILE A 215	4.223	83.036	37.035	1.00	15.00	N
ATOM	1475	CA	ILE A 215	3.197	83.359	38.023	1.00	15.00	C
ATOM	1476	CB	ILE A 215	3.067	84.892	38.208	1.00	15.00	C
ATOM	1477	CG2	ILE A 215	2.028	85.215	39.273	1.00	15.00	C
ATOM	1478	CG1	ILE A 215	4.414	85.493	38.614	1.00	15.00	C
ATOM	1479	CD1	ILE A 215	4.380	86.998	38.807	1.00	15.00	C
ATOM	1480	C	ILE A 215	1.833	82.790	37.623	1.00	15.00	C
ATOM	1481	O	ILE A 215	0.973	82.562	38.475	1.00	55.09	O
ATOM	5164	N	ILE B 215	81.352	35.442	46.381	1.00	15.00	N
ATOM	5165	CA	ILE B 215	80.998	36.164	47.404	1.00	15.00	C
ATOM	5166	CB	ILE B 215	81.045	37.646	47.501	1.00	15.00	C
ATOM	5167	CG2	ILE B 215	80.394	38.317	48.701	1.00	15.00	C
ATOM	5168	CG1	ILE B 215	82.565	37.732	47.651	1.00	15.00	C
ATOM	5169	CD1	ILE B 215	83.091	39.143	47.828	1.00	15.00	C
ATOM	5170	C	ILE B 215	79.094	36.111	47.112	1.00	15.00	C
ATOM	5171	O	ILE B 215	78.271	36.250	48.021	1.00	48.67	O
ATOM	1482	N	CYS A 216	1.623	82.622	36.321	1.00	15.00	N
ATOM	1483	CA	CYS A 216	0.370	82.084	35.808	1.00	15.00	C
ATOM	1484	CB	CYS A 216	0.244	82.381	34.313	1.00	15.00	C
ATOM	1485	SG	CYS A 216	0.287	84.150	33.907	1.00	15.00	S
ATOM	1486	C	CYS A 216	0.283	80.580	36.072	1.00	15.00	C
ATOM	1487	O	CYS A 216	-0.809	80.032	36.242	1.00	44.98	O
ATOM	5172	N	CYS B 216	78.749	35.959	45.837	1.00	15.00	N
ATOM	5173	CA	CYS B 216	77.355	35.886	45.407	1.00	15.00	C
ATOM	5174	CB	CYS B 216	77.253	36.134	43.900	1.00	15.00	C
ATOM	5175	SG	CYS B 216	77.846	37.757	43.356	1.00	15.00	S
ATOM	5176	C	CYS B 216	76.743	34.530	45.750	1.00	15.00	C
ATOM	5177	O	CYS B 216	75.547	34.433	46.035	1.00	51.99	O
ATOM	1515	N	SER A 220	-3.379	79.751	39.065	1.00	15.00	N
ATOM	1516	CA	SER A 220	-4.329	79.529	37.983	1.00	15.00	C
ATOM	1517	CB	SER A 220	-4.969	78.135	38.108	1.00	15.00	C
ATOM	1518	OG	SER A 220	-5.608	77.953	39.368	1.00	15.00	O
ATOM	1519	C	SER A 220	-5.412	80.607	37.811	1.00	15.00	C
ATOM	1520	O	SER A 220	-5.844	80.872	36.688	1.00	50.32	O
ATOM	5205	N	SER B 220	72.877	35.045	48.647	1.00	15.00	N
ATOM	5206	CA	SER B 220	71.967	35.210	47.518	1.00	15.00	C
ATOM	5207	CB	SER B 220	70.808	34.203	47.612	1.00	15.00	C
ATOM	5208	OG	SER B 220	70.117	34.298	48.855	1.00	15.00	O
ATOM	5209	C	SER B 220	71.429	36.633	47.314	1.00	15.00	C
ATOM	5210	O	SER B 220	71.171	37.038	46.181	1.00	51.16	O
ATOM	1521	N	PRO A 221	-5.890	81.214	38.916	1.00	15.00	N
ATOM	1522	CD	PRO A 221	-5.680	80.848	40.329	1.00	15.00	C
ATOM	1523	CA	PRO A 221	-6.925	82.249	38.807	1.00	15.00	C
ATOM	1524	CB	PRO A 221	-7.492	82.306	40.226	1.00	15.00	C
ATOM	1525	CG	PRO A 221	-6.300	82.007	41.063	1.00	15.00	C
ATOM	1526	C	PRO A 221	-6.425	83.625	38.355	1.00	15.00	C
ATOM	1527	O	PRO A 221	-7.203	84.577	38.280	1.00	51.31	O
ATOM	5211	N	PRO B 221	71.206	37.391	48.407	1.00	15.00	N
ATOM	5212	CD	PRO B 221	71.113	36.974	49.819	1.00	15.00	C
ATOM	5213	CA	PRO B 221	70.693	38.757	48.244	1.00	15.00	C
ATOM	5214	CB	PRO B 221	70.095	39.056	49.618	1.00	15.00	C
ATOM	5215	CG	PRO B 221	70.984	38.290	50.537	1.00	15.00	C
ATOM	5216	C	PRO B 221	71.718	39.823	47.838	1.00	15.00	C
ATOM	5217	O	PRO B 221	71.450	41.019	47.965	1.00	46.61	O
ATOM	1528	N	ILE A 222	-5.121	83.751	38.129	1.00	15.00	N
ATOM	1529	CA	ILE A 222	-4.559	85.019	37.679	1.00	15.00	C
ATOM	1530	CB	ILE A 222	-3.083	85.168	38.106	1.00	15.00	C
ATOM	1531	CG2	ILE A 222	-2.379	86.251	37.290	1.00	15.00	C
ATOM	1532	CG1	ILE A 222	-3.020	85.485	39.601	1.00	15.00	C
ATOM	1533	CD1	ILE A 222	-1.630	85.776	40.115	1.00	15.00	C
ATOM	1534	C	ILE A 222	-4.723	85.171	36.170	1.00	15.00	C
ATOM	1535	O	ILE A 222	-4.843	86.285	35.658	1.00	58.80	O
ATOM	5218	N	ILE B 222	72.908	39.398	47.423	1.00	15.00	N

298/514

Figure 4

ATOM	5219	CA	ILE B 222	73.943	40.337	46.995	1.00	15.00	C
ATOM	5220	CB	ILE B 222	75.368	39.820	47.340	1.00	15.00	C
ATOM	5221	CG2	ILE B 222	76.438	40.579	46.551	1.00	15.00	C
ATOM	5222	CG1	ILE B 222	75.615	39.962	48.845	1.00	15.00	C
ATOM	5223	CD1	ILE B 222	77.029	39.635	49.276	1.00	15.00	C
ATOM	5224	C	ILE B 222	73.819	40.639	45.503	1.00	15.00	C
ATOM	5225	O	ILE B 222	74.114	41.752	45.061	1.00	39.34	O
ATOM	1536	N	ILE A 223	-4.728	84.041	35.469	1.00	15.00	N
ATOM	1537	CA	ILE A 223	-4.891	84.018	34.016	1.00	15.00	C
ATOM	1538	CB	ILE A 223	-4.744	82.580	33.453	1.00	15.00	C
ATOM	1539	CG2	ILE A 223	-4.742	82.605	31.925	1.00	15.00	C
ATOM	1540	CG1	ILE A 223	-3.447	81.941	33.965	1.00	15.00	C
ATOM	1541	CD1	ILE A 223	-3.270	80.498	33.543	1.00	15.00	C
ATOM	1542	C	ILE A 223	-6.269	84.582	33.638	1.00	15.00	C
ATOM	1543	O	ILE A 223	-6.446	85.153	32.554	1.00	67.97	O
ATOM	5226	N	ILE B 223	73.381	39.644	44.737	1.00	15.00	N
ATOM	5227	CA	ILE B 223	73.200	39.791	43.295	1.00	15.00	C
ATOM	5228	CB	ILE B 223	72.752	38.455	42.652	1.00	15.00	C
ATOM	5229	CG2	ILE B 223	72.736	38.578	41.134	1.00	15.00	C
ATOM	5230	CG1	ILE B 223	73.699	37.325	43.069	1.00	15.00	C
ATOM	5231	CD1	ILE B 223	73.305	35.962	42.537	1.00	15.00	C
ATOM	5232	C	ILE B 223	72.153	40.874	43.004	1.00	15.00	C
ATOM	5233	O	ILE B 223	72.218	41.552	41.975	1.00	54.95	O

299/514

Figure 5
Table 8

ATOM	1	N	PRO A	30	6.878	61.335	49.245	1.00	61.00	N
ATOM	2	CA	PRO A	30	8.014	61.919	48.416	1.00	61.43	C
ATOM	4	CB	PRO A	30	7.464	61.966	46.979	1.00	61.58	C
ATOM	7	CG	PRO A	30	6.154	61.199	47.016	1.00	63.73	C
ATOM	10	CD	PRO A	30	5.664	61.064	48.459	1.00	62.97	C
ATOM	13	C	PRO A	30	8.336	63.307	48.907	1.00	58.16	C
ATOM	14	O	PRO A	30	7.494	64.150	48.681	1.00	61.01	O
ATOM	17	N	PRO A	31	9.496	63.542	49.529	1.00	55.37	N
ATOM	18	CA	PRO A	31	9.698	64.685	50.431	1.00	53.40	C
ATOM	20	CB	PRO A	31	11.078	64.414	51.056	1.00	52.92	C
ATOM	23	CG	PRO A	31	11.798	63.562	50.074	1.00	53.95	C
ATOM	26	CD	PRO A	31	10.733	62.755	49.377	1.00	56.47	C
ATOM	29	C	PRO A	31	9.722	65.984	49.683	1.00	53.45	C
ATOM	30	O	PRO A	31	9.553	65.933	48.486	1.00	58.59	O
ATOM	31	N	GLY A	32	9.945	67.100	50.368	1.00	53.10	N
ATOM	33	CA	GLY A	32	10.008	68.411	49.742	1.00	52.79	C
ATOM	36	C	GLY A	32	9.588	69.477	50.736	1.00	54.93	C
ATOM	37	O	GLY A	32	8.930	69.157	51.728	1.00	56.94	O
ATOM	38	N	PRO A	33	9.906	70.742	50.474	1.00	54.97	N
ATOM	39	CA	PRO A	33	9.568	71.805	51.421	1.00	56.07	C
ATOM	41	CB	PRO A	33	10.115	73.090	50.767	1.00	55.27	C
ATOM	44	CG	PRO A	33	10.286	72.764	49.341	1.00	56.42	C
ATOM	47	CD	PRO A	33	10.501	71.274	49.241	1.00	56.05	C
ATOM	50	C	PRO A	33	8.067	71.886	51.550	1.00	56.18	C
ATOM	51	O	PRO A	33	7.380	71.707	50.543	1.00	55.49	O
ATOM	52	N	THR A	34	7.599	72.100	52.779	1.00	58.13	N
ATOM	54	CA	THR A	34	6.201	72.390	53.080	1.00	59.19	C
ATOM	56	CB	THR A	34	5.926	72.433	54.640	1.00	62.47	C
ATOM	58	OG1	THR A	34	7.144	72.686	55.359	1.00	67.08	O
ATOM	60	CG2	THR A	34	5.437	71.068	55.183	1.00	63.35	C
ATOM	64	C	THR A	34	5.791	73.729	52.439	1.00	55.16	C
ATOM	65	O	THR A	34	6.429	74.773	52.658	1.00	49.57	O
ATOM	66	N	PRO A	35	4.727	73.688	51.647	1.00	52.53	N
ATOM	67	CA	PRO A	35	4.228	74.872	50.942	1.00	57.60	C
ATOM	69	CB	PRO A	35	3.455	74.258	49.792	1.00	58.33	C
ATOM	72	CG	PRO A	35	2.904	72.968	50.404	1.00	57.16	C
ATOM	75	CD	PRO A	35	3.938	72.483	51.341	1.00	51.06	C
ATOM	78	C	PRO A	35	3.282	75.743	51.773	1.00	62.91	C
ATOM	79	O	PRO A	35	2.536	75.227	52.604	1.00	66.03	O
ATOM	80	N	LEU A	36	3.305	77.048	51.521	1.00	66.79	N
ATOM	82	CA	LEU A	36	2.446	78.003	52.213	1.00	67.88	C
ATOM	84	CB	LEU A	36	3.057	79.408	52.135	1.00	65.49	C
ATOM	87	CG	LEU A	36	4.111	79.725	53.197	1.00	64.24	C
ATOM	89	CD1	LEU A	36	4.514	81.209	53.112	1.00	63.99	C
ATOM	93	CD2	LEU A	36	3.662	79.351	54.623	1.00	63.01	C
ATOM	97	C	LEU A	36	1.030	77.983	51.620	1.00	72.00	C
ATOM	98	O	LEU A	36	0.858	77.570	50.462	1.00	71.33	O
ATOM	99	N	PRO A	37	0.035	78.432	52.407	1.00	74.53	N
ATOM	100	CA	PRO A	37	-1.382	78.218	52.092	1.00	74.69	C
ATOM	102	CB	PRO A	37	-2.088	79.290	52.938	1.00	76.28	C
ATOM	105	CG	PRO A	37	-1.215	79.481	54.139	1.00	76.86	C
ATOM	108	CD	PRO A	37	0.187	79.182	53.674	1.00	75.76	C
ATOM	111	C	PRO A	37	-1.764	78.338	50.611	1.00	73.79	C
ATOM	112	O	PRO A	37	-2.268	77.360	50.048	1.00	77.01	O
ATOM	113	N	VAL A	38	-1.543	79.487	49.985	1.00	70.46	N
ATOM	115	CA	VAL A	38	-1.994	79.671	48.593	1.00	71.17	C
ATOM	117	CB	VAL A	38	-3.048	80.830	48.485	1.00	72.09	C
ATOM	119	CG1	VAL A	38	-2.494	82.160	49.039	1.00	72.48	C
ATOM	123	CG2	VAL A	38	-3.559	80.997	47.039	1.00	72.34	C
ATOM	127	C	VAL A	38	-0.831	79.878	47.593	1.00	70.86	C
ATOM	128	O	VAL A	38	-0.965	79.565	46.396	1.00	71.52	O
ATOM	129	N	ILE A	39	0.301	80.381	48.096	1.00	68.60	N
ATOM	131	CA	ILE A	39	1.465	80.736	47.272	1.00	65.17	C
ATOM	133	CB	ILE A	39	2.272	81.901	47.914	1.00	65.20	C
ATOM	135	CG1	ILE A	39	2.423	81.696	49.430	1.00	67.49	C
ATOM	138	CD1	ILE A	39	3.548	82.502	50.052	1.00	68.54	C
ATOM	142	CG2	ILE A	39	1.632	83.243	47.590	1.00	61.63	C
ATOM	146	C	ILE A	39	2.407	79.552	46.976	1.00	64.64	C
ATOM	147	O	ILE A	39	3.514	79.747	46.452	1.00	61.51	O
ATOM	148	N	GLY A	40	1.966	78.333	47.292	1.00	61.40	N
ATOM	150	CA	GLY A	40	2.721	77.146	46.949	1.00	57.61	C
ATOM	153	C	GLY A	40	4.116	77.243	47.522	1.00	55.40	C
ATOM	154	O	GLY A	40	4.275	77.687	48.659	1.00	53.09	O
ATOM	155	N	ASN A	41	5.121	76.863	46.728	1.00	52.11	N

300/514

Figure 5

ATOM	157	CA	ASN	A	41	6.507	76.838	47.182	1.00	46.90	C
ATOM	159	CB	ASN	A	41	7.155	75.507	46.801	1.00	44.37	C
ATOM	162	CG	ASN	A	41	6.996	74.450	47.869	1.00	45.32	C
ATOM	163	OD1	ASN	A	41	7.345	74.669	49.022	1.00	51.73	O
ATOM	164	ND2	ASN	A	41	6.492	73.289	47.493	1.00	46.81	N
ATOM	167	C	ASN	A	41	7.304	78.004	46.624	1.00	48.76	C
ATOM	168	O	ASN	A	41	8.516	77.991	46.685	1.00	51.72	O
ATOM	169	N	ILE	A	42	6.621	79.034	46.128	1.00	51.11	N
ATOM	171	CA	ILE	A	42	7.251	80.137	45.395	1.00	54.36	C
ATOM	173	CB	ILE	A	42	6.162	81.148	44.855	1.00	57.29	C
ATOM	175	CG1	ILE	A	42	6.600	81.775	43.525	1.00	57.47	C
ATOM	178	CD1	ILE	A	42	5.581	82.752	42.926	1.00	56.59	C
ATOM	182	CG2	ILE	A	42	5.853	82.270	45.876	1.00	57.93	C
ATOM	186	C	ILE	A	42	8.306	80.922	46.158	1.00	56.53	C
ATOM	187	O	ILE	A	42	9.143	81.564	45.547	1.00	63.07	O
ATOM	188	N	LEU	A	43	8.248	80.956	47.481	1.00	60.90	N
ATOM	190	CA	LEU	A	43	9.274	81.697	48.228	1.00	61.26	C
ATOM	192	CB	LEU	A	43	8.884	81.871	49.705	1.00	60.92	C
ATOM	195	CG	LEU	A	43	8.148	83.156	50.143	1.00	58.93	C
ATOM	197	CD1	LEU	A	43	7.493	83.955	49.002	1.00	58.38	C
ATOM	201	CD2	LEU	A	43	7.126	82.814	51.210	1.00	58.58	C
ATOM	205	C	LEU	A	43	10.605	80.962	48.079	1.00	61.13	C
ATOM	206	O	LEU	A	43	11.626	81.576	47.847	1.00	63.68	O
ATOM	207	N	GLN	A	44	10.550	79.640	48.146	1.00	62.00	N
ATOM	209	CA	GLN	A	44	11.721	78.770	48.050	1.00	66.10	C
ATOM	211	CB	GLN	A	44	11.345	77.323	48.449	1.00	69.58	C
ATOM	214	CG	GLN	A	44	10.551	77.155	49.756	1.00	73.34	C
ATOM	217	CD	GLN	A	44	11.451	77.222	50.977	1.00	76.75	C
ATOM	218	OE1	GLN	A	44	11.565	76.239	51.717	1.00	77.94	O
ATOM	219	NE2	GLN	A	44	12.069	78.389	51.198	1.00	78.11	N
ATOM	222	C	GLN	A	44	12.385	78.705	46.662	1.00	65.31	C
ATOM	223	O	GLN	A	44	13.589	78.448	46.582	1.00	68.54	O
ATOM	224	N	ILE	A	45	11.611	78.890	45.586	1.00	62.74	N
ATOM	226	CA	ILE	A	45	12.108	78.709	44.210	1.00	59.94	C
ATOM	228	CB	ILE	A	45	11.257	77.650	43.458	1.00	59.17	C
ATOM	230	CG1	ILE	A	45	10.042	78.262	42.778	1.00	59.74	C
ATOM	233	CD1	ILE	A	45	9.101	77.212	42.194	1.00	64.66	C
ATOM	237	CG2	ILE	A	45	10.807	76.565	44.411	1.00	58.29	C
ATOM	241	C	ILE	A	45	12.182	80.003	43.416	1.00	58.66	C
ATOM	242	O	ILE	A	45	13.067	80.205	42.579	1.00	55.39	O
ATOM	243	N	GLY	A	46	11.216	80.866	43.669	1.00	61.29	N
ATOM	245	CA	GLY	A	46	11.189	82.188	43.096	1.00	61.99	C
ATOM	248	C	GLY	A	46	10.771	82.129	41.655	1.00	62.28	C
ATOM	249	O	GLY	A	46	10.257	81.138	41.155	1.00	62.06	O
ATOM	250	N	ILE	A	47	11.045	83.218	40.981	1.00	66.16	N
ATOM	252	CA	ILE	A	47	10.602	83.431	39.626	1.00	70.11	C
ATOM	254	CB	ILE	A	47	9.706	84.652	39.697	1.00	72.59	C
ATOM	256	CG1	ILE	A	47	8.668	84.626	38.596	1.00	77.25	C
ATOM	259	CD1	ILE	A	47	7.527	85.548	38.915	1.00	79.30	C
ATOM	263	CG2	ILE	A	47	10.539	85.958	39.718	1.00	72.25	C
ATOM	267	C	ILE	A	47	11.786	83.646	38.655	1.00	71.63	C
ATOM	268	O	ILE	A	47	11.589	83.681	37.435	1.00	71.09	O
ATOM	269	N	LYS	A	48	12.998	83.739	39.230	1.00	72.11	N
ATOM	271	CA	LYS	A	48	14.245	84.111	38.551	1.00	71.74	C
ATOM	273	CB	LYS	A	48	15.256	84.732	39.565	1.00	74.19	C
ATOM	276	CG	LYS	A	48	14.664	85.544	40.784	1.00	77.74	C
ATOM	279	CD	LYS	A	48	14.879	84.830	42.170	1.00	75.87	C
ATOM	282	CE	LYS	A	48	13.932	85.358	43.272	1.00	74.40	C
ATOM	285	NZ	LYS	A	48	14.043	86.833	43.495	1.00	69.34	N
ATOM	289	C	LYS	A	48	14.827	82.859	37.852	1.00	70.54	C
ATOM	290	O	LYS	A	48	14.159	82.275	36.991	1.00	69.74	O
ATOM	291	N	ASP	A	49	16.050	82.443	38.204	1.00	66.15	N
ATOM	293	CA	ASP	A	49	16.589	81.165	37.735	1.00	64.51	C
ATOM	295	CB	ASP	A	49	18.131	81.134	37.775	1.00	65.14	C
ATOM	298	CG	ASP	A	49	18.727	79.934	37.002	1.00	64.82	C
ATOM	299	OD1	ASP	A	49	19.979	79.868	36.901	1.00	61.50	O
ATOM	300	OD2	ASP	A	49	18.031	79.028	36.462	1.00	62.42	O
ATOM	301	C	ASP	A	49	16.039	80.029	38.579	1.00	60.79	C
ATOM	302	O	ASP	A	49	16.607	79.675	39.610	1.00	61.71	O
ATOM	303	N	ILE	A	50	14.945	79.436	38.127	1.00	57.75	N
ATOM	305	CA	ILE	A	50	14.358	78.357	38.883	1.00	57.10	C
ATOM	307	CB	ILE	A	50	12.849	78.116	38.553	1.00	59.29	C
ATOM	309	CG1	ILE	A	50	12.662	76.997	37.540	1.00	62.83	C
ATOM	312	CD1	ILE	A	50	12.269	75.679	38.188	1.00	65.22	C
ATOM	316	CG2	ILE	A	50	12.135	79.399	38.112	1.00	62.14	C
ATOM	320	C	ILE	A	50	15.185	77.078	38.816	1.00	54.84	C

301/514

Figure 5

ATOM	321	O	ILE	A	50	15.099	76.282	39.738	1.00	56.71	O
ATOM	322	N	SER	A	51	15.997	76.867	37.780	1.00	53.80	N
ATOM	324	CA	SER	A	51	16.840	75.661	37.760	1.00	57.11	C
ATOM	326	CB	SER	A	51	17.529	75.430	36.413	1.00	58.90	C
ATOM	329	OG	SER	A	51	18.076	74.107	36.380	1.00	52.80	O
ATOM	331	C	SER	A	51	17.910	75.649	38.865	1.00	59.40	C
ATOM	332	O	SER	A	51	18.216	74.581	39.420	1.00	56.13	O
ATOM	333	N	LYS	A	52	18.477	76.819	39.177	1.00	59.35	N
ATOM	335	CA	LYS	A	52	19.409	76.942	40.304	1.00	60.90	C
ATOM	337	CB	LYS	A	52	20.018	78.347	40.375	1.00	65.61	C
ATOM	340	CG	LYS	A	52	21.506	78.383	40.834	1.00	71.39	C
ATOM	343	CD	LYS	A	52	22.513	77.854	39.767	1.00	72.95	C
ATOM	346	CE	LYS	A	52	22.500	78.668	38.463	1.00	72.86	C
ATOM	349	NZ	LYS	A	52	23.724	78.445	37.643	1.00	73.52	N
ATOM	353	C	LYS	A	52	18.731	76.612	41.640	1.00	59.11	C
ATOM	354	O	LYS	A	52	19.317	75.938	42.491	1.00	63.39	O
ATOM	355	N	SER	A	53	17.503	77.079	41.823	1.00	51.10	N
ATOM	357	CA	SER	A	53	16.754	76.777	43.030	1.00	49.20	C
ATOM	359	CB	SER	A	53	15.428	77.513	43.018	1.00	48.90	C
ATOM	362	OG	SER	A	53	15.682	78.902	43.024	1.00	55.27	O
ATOM	364	C	SER	A	53	16.494	75.304	43.196	1.00	47.69	C
ATOM	365	O	SER	A	53	16.495	74.797	44.302	1.00	46.97	O
ATOM	366	N	LEU	A	54	16.257	74.616	42.092	1.00	48.67	N
ATOM	368	CA	LEU	A	54	16.047	73.178	42.121	1.00	48.30	C
ATOM	370	CB	LEU	A	54	15.619	72.711	40.746	1.00	48.96	C
ATOM	373	CG	LEU	A	54	14.265	73.182	40.250	1.00	49.52	C
ATOM	375	CD1	LEU	A	54	14.093	72.596	38.867	1.00	53.06	C
ATOM	379	CD2	LEU	A	54	13.122	72.739	41.160	1.00	49.72	C
ATOM	383	C	LEU	A	54	17.300	72.388	42.536	1.00	47.43	C
ATOM	384	O	LEU	A	54	17.190	71.328	43.138	1.00	47.64	O
ATOM	385	N	THR	A	55	18.478	72.899	42.193	1.00	45.04	N
ATOM	387	CA	THR	A	55	19.725	72.219	42.493	1.00	43.51	C
ATOM	389	CB	THR	A	55	20.931	72.812	41.639	1.00	43.09	C
ATOM	391	OG1	THR	A	55	20.749	72.557	40.223	1.00	40.56	O
ATOM	393	CG2	THR	A	55	22.261	72.121	41.989	1.00	38.93	C
ATOM	397	C	THR	A	55	19.951	72.351	43.993	1.00	43.20	C
ATOM	398	O	THR	A	55	20.258	71.373	44.670	1.00	45.90	O
ATOM	399	N	ASN	A	56	19.797	73.574	44.495	1.00	43.15	N
ATOM	401	CA	ASN	A	56	19.854	73.879	45.920	1.00	39.02	C
ATOM	403	CB	ASN	A	56	19.578	75.367	46.134	1.00	40.32	C
ATOM	406	CG	ASN	A	56	20.769	76.255	45.746	1.00	41.95	C
ATOM	407	OD1	ASN	A	56	21.859	75.765	45.460	1.00	44.95	O
ATOM	408	ND2	ASN	A	56	20.555	77.565	45.740	1.00	35.62	N
ATOM	411	C	ASN	A	56	18.856	73.041	46.725	1.00	37.78	C
ATOM	412	O	ASN	A	56	19.198	72.450	47.732	1.00	36.73	O
ATOM	413	N	LEU	A	57	17.624	72.951	46.268	1.00	36.18	N
ATOM	415	CA	LEU	A	57	16.663	72.091	46.950	1.00	38.01	C
ATOM	417	CB	LEU	A	57	15.273	72.225	46.346	1.00	40.34	C
ATOM	420	CG	LEU	A	57	14.570	73.533	46.695	1.00	42.27	C
ATOM	422	CD1	LEU	A	57	13.478	73.797	45.673	1.00	44.61	C
ATOM	426	CD2	LEU	A	57	14.009	73.491	48.119	1.00	45.41	C
ATOM	430	C	LEU	A	57	17.081	70.629	46.947	1.00	38.39	C
ATOM	431	O	LEU	A	57	16.829	69.926	47.916	1.00	41.36	O
ATOM	432	N	SER	A	58	17.718	70.172	45.871	1.00	40.05	N
ATOM	434	CA	SER	A	58	18.178	68.783	45.780	1.00	38.99	C
ATOM	436	CB	SER	A	58	18.753	68.457	44.394	1.00	37.77	C
ATOM	439	OG	SER	A	58	20.006	69.088	44.197	1.00	36.94	O
ATOM	441	C	SER	A	58	19.220	68.491	46.848	1.00	38.70	C
ATOM	442	O	SER	A	58	19.289	67.376	47.341	1.00	31.77	O
ATOM	443	N	LYS	A	59	20.016	69.505	47.194	1.00	40.55	N
ATOM	445	CA	LYS	A	59	21.033	69.397	48.245	1.00	42.29	C
ATOM	447	CB	LYS	A	59	21.857	70.691	48.333	1.00	43.93	C
ATOM	450	CG	LYS	A	59	23.264	70.609	47.782	1.00	50.14	C
ATOM	453	CD	LYS	A	59	23.314	70.365	46.253	1.00	58.54	C
ATOM	456	CE	LYS	A	59	24.578	70.963	45.612	1.00	60.60	C
ATOM	459	NZ	LYS	A	59	24.806	72.375	46.090	1.00	63.13	N
ATOM	463	C	LYS	A	59	20.416	69.100	49.615	1.00	43.07	C
ATOM	464	O	LYS	A	59	21.095	68.556	50.477	1.00	41.74	O
ATOM	465	N	VAL	A	60	19.146	69.476	49.828	1.00	43.93	N
ATOM	467	CA	VAL	A	60	18.468	69.172	51.091	1.00	39.04	C
ATOM	469	CB	VAL	A	60	17.888	70.420	51.791	1.00	39.98	C
ATOM	471	CG1	VAL	A	60	18.437	71.732	51.199	1.00	38.84	C
ATOM	475	CG2	VAL	A	60	16.378	70.406	51.791	1.00	39.59	C
ATOM	479	C	VAL	A	60	17.398	68.085	51.001	1.00	40.95	C
ATOM	480	O	VAL	A	60	17.209	67.353	51.969	1.00	36.94	O
ATOM	481	N	TYR	A	61	16.707	67.931	49.877	1.00	38.43	N

302/514

Figure 5

ATOM	483	CA	TYR	A	61	15.653	66.922	49.848	1.00	39.56	C
ATOM	485	CB	TYR	A	61	14.333	67.503	49.347	1.00	38.41	C
ATOM	488	CG	TYR	A	61	13.850	68.635	50.230	1.00	41.14	C
ATOM	489	CD1	TYR	A	61	13.219	68.379	51.464	1.00	44.54	C
ATOM	491	CE1	TYR	A	61	12.786	69.446	52.298	1.00	45.74	C
ATOM	493	CZ	TYR	A	61	12.998	70.768	51.889	1.00	46.80	C
ATOM	494	OH	TYR	A	61	12.607	71.821	52.675	1.00	45.62	O
ATOM	496	CE2	TYR	A	61	13.636	71.042	50.674	1.00	47.77	C
ATOM	498	CD2	TYR	A	61	14.056	69.979	49.855	1.00	45.52	C
ATOM	500	C	TYR	A	61	16.045	65.666	49.108	1.00	40.64	C
ATOM	501	O	TYR	A	61	15.329	64.662	49.162	1.00	42.58	O
ATOM	502	N	GLY	A	62	17.204	65.701	48.459	1.00	42.28	N
ATOM	504	CA	GLY	A	62	17.723	64.550	47.732	1.00	38.32	C
ATOM	507	C	GLY	A	62	17.404	64.652	46.260	1.00	38.27	C
ATOM	508	O	GLY	A	62	16.932	65.696	45.789	1.00	31.02	O
ATOM	509	N	PRO	A	63	17.647	63.568	45.532	1.00	37.41	N
ATOM	510	CA	PRO	A	63	17.412	63.528	44.082	1.00	41.74	C
ATOM	512	CB	PRO	A	63	18.118	62.236	43.653	1.00	41.63	C
ATOM	515	CG	PRO	A	63	17.973	61.366	44.819	1.00	39.11	C
ATOM	518	CD	PRO	A	63	18.148	62.281	46.017	1.00	36.48	C
ATOM	521	C	PRO	A	63	15.949	63.440	43.664	1.00	43.12	C
ATOM	522	O	PRO	A	63	15.711	63.605	42.479	1.00	46.43	O
ATOM	523	N	VAL	A	64	15.012	63.149	44.567	1.00	44.24	N
ATOM	525	CA	VAL	A	64	13.585	63.064	44.199	1.00	44.62	C
ATOM	527	CB	VAL	A	64	13.092	61.615	44.191	1.00	45.28	C
ATOM	529	CG1	VAL	A	64	11.680	61.532	43.669	1.00	45.09	C
ATOM	533	CG2	VAL	A	64	14.016	60.732	43.360	1.00	48.58	C
ATOM	537	C	VAL	A	64	12.714	63.862	45.168	1.00	45.62	C
ATOM	538	O	VAL	A	64	12.293	63.344	46.197	1.00	43.30	O
ATOM	539	N	PHE	A	65	12.455	65.127	44.853	1.00	45.92	N
ATOM	541	CA	PHE	A	65	11.601	65.910	45.719	1.00	45.96	C
ATOM	543	CB	PHE	A	65	12.338	67.086	46.342	1.00	46.47	C
ATOM	546	CG	PHE	A	65	12.975	68.039	45.368	1.00	44.03	C
ATOM	547	CD1	PHE	A	65	14.262	67.808	44.907	1.00	41.08	C
ATOM	549	CE1	PHE	A	65	14.903	68.704	44.074	1.00	40.21	C
ATOM	551	CZ	PHE	A	65	14.263	69.865	43.691	1.00	45.93	C
ATOM	553	CE2	PHE	A	65	12.972	70.130	44.159	1.00	47.81	C
ATOM	555	CD2	PHE	A	65	12.335	69.214	45.004	1.00	44.86	C
ATOM	557	C	PHE	A	65	10.311	66.370	45.087	1.00	46.81	C
ATOM	558	O	PHE	A	65	10.177	66.370	43.866	1.00	39.93	O
ATOM	559	N	THR	A	66	9.374	66.741	45.976	1.00	47.98	N
ATOM	561	CA	THR	A	66	8.054	67.268	45.647	1.00	47.44	C
ATOM	563	CB	THR	A	66	6.974	66.679	46.578	1.00	47.18	C
ATOM	565	OG1	THR	A	66	6.751	65.288	46.281	1.00	49.03	O
ATOM	567	CG2	THR	A	66	5.623	67.314	46.298	1.00	48.72	C
ATOM	571	C	THR	A	66	8.069	68.793	45.753	1.00	47.38	C
ATOM	572	O	THR	A	66	8.704	69.363	46.632	1.00	45.50	O
ATOM	573	N	LEU	A	67	7.358	69.445	44.847	1.00	48.54	N
ATOM	575	CA	LEU	A	67	7.361	70.893	44.773	1.00	50.54	C
ATOM	577	CB	LEU	A	67	8.410	71.363	43.776	1.00	51.26	C
ATOM	580	CG	LEU	A	67	9.083	72.677	44.156	1.00	50.62	C
ATOM	582	CD1	LEU	A	67	10.101	72.396	45.222	1.00	50.37	C
ATOM	586	CD2	LEU	A	67	9.725	73.351	42.942	1.00	53.87	C
ATOM	590	C	LEU	A	67	5.992	71.393	44.353	1.00	51.85	C
ATOM	591	O	LEU	A	67	5.364	70.828	43.459	1.00	52.61	O
ATOM	592	N	TYR	A	68	5.540	72.470	44.984	1.00	52.53	N
ATOM	594	CA	TYR	A	68	4.191	72.975	44.760	1.00	52.74	C
ATOM	596	CB	TYR	A	68	3.472	73.223	46.098	1.00	53.90	C
ATOM	599	CG	TYR	A	68	3.016	71.927	46.732	1.00	51.78	C
ATOM	600	CD1	TYR	A	68	3.846	71.219	47.588	1.00	53.07	C
ATOM	602	CE1	TYR	A	68	3.437	70.004	48.147	1.00	52.00	C
ATOM	604	CZ	TYR	A	68	2.198	69.488	47.828	1.00	49.04	C
ATOM	605	OH	TYR	A	68	1.799	68.302	48.375	1.00	49.91	O
ATOM	607	CE2	TYR	A	68	1.369	70.157	46.962	1.00	50.81	C
ATOM	609	CD2	TYR	A	68	1.780	71.371	46.415	1.00	53.21	C
ATOM	611	C	TYR	A	68	4.240	74.231	43.925	1.00	50.64	C
ATOM	612	O	TYR	A	68	4.904	75.202	44.293	1.00	48.54	O
ATOM	613	N	PHE	A	69	3.554	74.189	42.787	1.00	49.74	N
ATOM	615	CA	PHE	A	69	3.350	75.373	41.956	1.00	53.60	C
ATOM	617	CB	PHE	A	69	3.550	75.005	40.484	1.00	56.56	C
ATOM	620	CG	PHE	A	69	4.980	75.041	40.071	1.00	58.76	C
ATOM	621	CD1	PHE	A	69	5.438	76.008	39.203	1.00	61.14	C
ATOM	623	CE1	PHE	A	69	6.750	76.056	38.859	1.00	62.77	C
ATOM	625	CZ	PHE	A	69	7.637	75.154	39.394	1.00	63.28	C
ATOM	627	CE2	PHE	A	69	7.199	74.195	40.280	1.00	62.51	C
ATOM	629	CD2	PHE	A	69	5.885	74.146	40.618	1.00	61.18	C

303/514

Figure 5

ATOM	631	C	PHE	A	69	1.951	75.922	42.228	1.00	54.68	C
ATOM	632	O	PHE	A	69	0.972	75.501	41.589	1.00	50.49	O
ATOM	633	N	GLY	A	70	1.872	76.844	43.195	1.00	54.77	N
ATOM	635	CA	GLY	A	70	0.630	77.105	43.906	1.00	53.82	C
ATOM	638	C	GLY	A	70	0.129	75.824	44.575	1.00	56.38	C
ATOM	639	O	GLY	A	70	0.739	75.363	45.552	1.00	55.79	O
ATOM	640	N	LEU	A	71	-0.942	75.230	44.025	1.00	55.08	N
ATOM	642	CA	LEU	A	71	-1.569	74.012	44.576	1.00	55.18	C
ATOM	644	CB	LEU	A	71	-3.089	74.161	44.563	1.00	56.69	C
ATOM	647	CG	LEU	A	71	-3.800	75.320	45.276	1.00	56.46	C
ATOM	649	CD1	LEU	A	71	-5.292	74.931	45.380	1.00	54.73	C
ATOM	653	CD2	LEU	A	71	-3.188	75.669	46.662	1.00	55.21	C
ATOM	657	C	LEU	A	71	-1.246	72.698	43.845	1.00	57.42	C
ATOM	658	O	LEU	A	71	-1.674	71.626	44.293	1.00	52.71	O
ATOM	659	N	LYS	A	72	-0.516	72.798	42.723	1.00	61.66	N
ATOM	661	CA	LYS	A	72	-0.111	71.661	41.863	1.00	60.29	C
ATOM	663	CB	LYS	A	72	0.209	72.188	40.452	1.00	61.71	C
ATOM	666	CG	LYS	A	72	0.368	71.132	39.350	1.00	59.57	C
ATOM	669	CD	LYS	A	72	0.372	71.806	37.973	1.00	60.32	C
ATOM	672	CE	LYS	A	72	1.078	70.969	36.908	1.00	61.19	C
ATOM	675	NZ	LYS	A	72	0.226	69.892	36.339	1.00	62.02	N
ATOM	679	C	LYS	A	72	1.130	70.939	42.422	1.00	59.36	C
ATOM	680	O	LYS	A	72	2.147	71.590	42.683	1.00	56.33	O
ATOM	681	N	PRO	A	73	1.054	69.616	42.621	1.00	59.37	N
ATOM	682	CA	PRO	A	73	2.209	68.859	43.122	1.00	59.06	C
ATOM	684	CB	PRO	A	73	1.563	67.674	43.855	1.00	58.64	C
ATOM	687	CG	PRO	A	73	0.253	67.424	43.104	1.00	58.90	C
ATOM	690	CD	PRO	A	73	-0.110	68.730	42.404	1.00	59.72	C
ATOM	693	C	PRO	A	73	3.083	68.392	41.959	1.00	57.10	C
ATOM	694	O	PRO	A	73	2.597	67.736	41.031	1.00	56.75	O
ATOM	695	N	ILE	A	74	4.363	68.742	42.030	1.00	56.17	N
ATOM	697	CA	ILE	A	74	5.362	68.443	40.999	1.00	53.86	C
ATOM	699	CB	ILE	A	74	6.014	69.767	40.526	1.00	53.92	C
ATOM	701	CG1	ILE	A	74	4.961	70.705	39.933	1.00	56.77	C
ATOM	704	CD1	ILE	A	74	4.096	70.067	38.887	1.00	55.94	C
ATOM	708	CG2	ILE	A	74	7.147	69.526	39.548	1.00	51.49	C
ATOM	712	C	ILE	A	74	6.441	67.590	41.621	1.00	50.14	C
ATOM	713	O	ILE	A	74	7.025	68.001	42.619	1.00	51.32	O
ATOM	714	N	VAL	A	75	6.722	66.420	41.056	1.00	46.26	N
ATOM	716	CA	VAL	A	75	7.957	65.703	41.411	1.00	46.21	C
ATOM	718	CB	VAL	A	75	7.756	64.180	41.322	1.00	46.55	C
ATOM	720	CG1	VAL	A	75	9.033	63.436	41.645	1.00	47.93	C
ATOM	724	CG2	VAL	A	75	6.693	63.753	42.283	1.00	49.41	C
ATOM	728	C	VAL	A	75	9.150	66.159	40.526	1.00	41.49	C
ATOM	729	O	VAL	A	75	9.116	65.971	39.333	1.00	43.55	O
ATOM	730	N	VAL	A	76	10.166	66.793	41.115	1.00	37.92	N
ATOM	732	CA	VAL	A	76	11.459	67.063	40.446	1.00	39.38	C
ATOM	734	CB	VAL	A	76	12.157	68.313	41.052	1.00	38.98	C
ATOM	736	CG1	VAL	A	76	13.475	68.571	40.386	1.00	42.09	C
ATOM	740	CG2	VAL	A	76	11.307	69.536	40.928	1.00	42.46	C
ATOM	744	C	VAL	A	76	12.465	65.877	40.565	1.00	37.99	C
ATOM	745	O	VAL	A	76	12.687	65.372	41.663	1.00	38.01	O
ATOM	746	N	LEU	A	77	13.063	65.444	39.445	1.00	38.10	N
ATOM	748	CA	LEU	A	77	14.171	64.463	39.432	1.00	35.38	C
ATOM	750	CB	LEU	A	77	13.926	63.441	38.355	1.00	35.52	C
ATOM	753	CG	LEU	A	77	12.619	62.673	38.325	1.00	35.97	C
ATOM	755	CD1	LEU	A	77	12.766	61.531	37.324	1.00	35.60	C
ATOM	759	CD2	LEU	A	77	12.199	62.167	39.693	1.00	34.85	C
ATOM	763	C	LEU	A	77	15.517	65.135	39.127	1.00	34.72	C
ATOM	764	O	LEU	A	77	15.652	65.742	38.087	1.00	33.92	O
ATOM	765	N	HIS	A	78	16.517	65.033	40.001	1.00	38.68	N
ATOM	767	CA	HIS	A	78	17.722	65.849	39.824	1.00	39.77	C
ATOM	769	CB	HIS	A	78	18.182	66.464	41.122	1.00	38.32	C
ATOM	772	CG	HIS	A	78	19.048	67.671	40.940	1.00	37.02	C
ATOM	773	ND1	HIS	A	78	20.373	67.701	41.316	1.00	39.96	N
ATOM	775	CE1	HIS	A	78	20.879	68.900	41.067	1.00	39.45	C
ATOM	777	NE2	HIS	A	78	19.925	69.653	40.548	1.00	38.20	N
ATOM	779	CD2	HIS	A	78	18.770	68.906	40.456	1.00	37.78	C
ATOM	781	C	HIS	A	78	18.895	65.154	39.115	1.00	44.11	C
ATOM	782	O	HIS	A	78	19.109	65.371	37.912	1.00	49.18	O
ATOM	783	N	GLY	A	79	19.682	64.342	39.791	1.00	39.04	N
ATOM	785	CA	GLY	A	79	20.921	63.947	39.138	1.00	38.00	C
ATOM	788	C	GLY	A	79	20.737	62.981	37.976	1.00	36.52	C
ATOM	789	O	GLY	A	79	19.630	62.517	37.713	1.00	32.66	O
ATOM	790	N	TYR	A	80	21.843	62.656	37.306	1.00	37.59	N
ATOM	792	CA	TYR	A	80	21.850	61.683	36.203	1.00	40.74	C

304/514

Figure 5

ATOM	794	CB	TYR	A	80	23.289	61.391	35.724	1.00	44.43	C
ATOM	797	CG	TYR	A	80	23.387	60.217	34.762	1.00	45.09	C
ATOM	798	CD1	TYR	A	80	23.319	60.406	33.382	1.00	46.99	C
ATOM	800	CE1	TYR	A	80	23.392	59.333	32.499	1.00	43.40	C
ATOM	802	CZ	TYR	A	80	23.545	58.062	32.986	1.00	44.95	C
ATOM	803	OH	TYR	A	80	23.627	56.999	32.123	1.00	51.53	O
ATOM	805	CE2	TYR	A	80	23.609	57.845	34.336	1.00	46.76	C
ATOM	807	CD2	TYR	A	80	23.531	58.925	35.223	1.00	44.09	C
ATOM	809	C	TYR	A	80	21.206	60.367	36.582	1.00	37.19	C
ATOM	810	O	TYR	A	80	20.431	59.831	35.816	1.00	36.61	O
ATOM	811	N	GLU	A	81	21.539	59.836	37.753	1.00	39.16	N
ATOM	813	CA	GLU	A	81	21.082	58.496	38.097	1.00	43.27	C
ATOM	815	CB	GLU	A	81	21.737	57.976	39.382	1.00	45.28	C
ATOM	818	CG	GLU	A	81	23.194	57.522	39.230	1.00	52.79	C
ATOM	821	CD	GLU	A	81	23.420	56.376	38.209	1.00	60.01	C
ATOM	822	OE1	GLU	A	81	24.518	56.313	37.580	1.00	55.78	O
ATOM	823	OE2	GLU	A	81	22.509	55.530	38.017	1.00	67.94	O
ATOM	824	C	GLU	A	81	19.545	58.438	38.145	1.00	42.25	C
ATOM	825	O	GLU	A	81	18.952	57.531	37.563	1.00	41.60	O
ATOM	826	N	ALA	A	82	18.905	59.432	38.760	1.00	39.82	N
ATOM	828	CA	ALA	A	82	17.447	59.418	38.884	1.00	38.05	C
ATOM	830	CB	ALA	A	82	16.983	60.433	39.883	1.00	35.64	C
ATOM	834	C	ALA	A	82	16.796	59.663	37.525	1.00	42.42	C
ATOM	835	O	ALA	A	82	15.833	58.975	37.156	1.00	45.90	O
ATOM	836	N	VAL	A	83	17.338	60.617	36.765	1.00	40.92	N
ATOM	838	CA	VAL	A	83	16.842	60.913	35.415	1.00	37.45	C
ATOM	840	CB	VAL	A	83	17.636	62.046	34.759	1.00	36.54	C
ATOM	842	CG1	VAL	A	83	17.184	62.288	33.348	1.00	34.71	C
ATOM	846	CG2	VAL	A	83	17.503	63.323	35.549	1.00	38.16	C
ATOM	850	C	VAL	A	83	16.948	59.686	34.521	1.00	38.28	C
ATOM	851	O	VAL	A	83	16.009	59.343	33.804	1.00	35.61	O
ATOM	852	N	LYS	A	84	18.089	59.008	34.571	1.00	43.42	N
ATOM	854	CA	LYS	A	84	18.287	57.820	33.735	1.00	48.36	C
ATOM	856	CB	LYS	A	84	19.770	57.377	33.714	1.00	50.74	C
ATOM	859	CG	LYS	A	84	20.071	55.884	33.992	1.00	54.01	C
ATOM	862	CD	LYS	A	84	20.160	55.019	32.747	1.00	54.09	C
ATOM	865	CE	LYS	A	84	20.971	53.720	33.010	1.00	58.22	C
ATOM	868	NZ	LYS	A	84	20.152	52.542	33.478	1.00	52.81	N
ATOM	872	C	LYS	A	84	17.332	56.711	34.187	1.00	48.71	C
ATOM	873	O	LYS	A	84	16.714	56.029	33.363	1.00	48.01	O
ATOM	874	N	GLU	A	85	17.185	56.559	35.499	1.00	48.96	N
ATOM	876	CA	GLU	A	85	16.327	55.520	36.032	1.00	49.84	C
ATOM	878	CB	GLU	A	85	16.463	55.432	37.540	1.00	52.57	C
ATOM	881	CG	GLU	A	85	15.759	54.220	38.131	1.00	55.65	C
ATOM	884	CD	GLU	A	85	16.089	53.999	39.589	1.00	57.08	C
ATOM	885	OE1	GLU	A	85	16.970	54.717	40.110	1.00	52.12	O
ATOM	886	OE2	GLU	A	85	15.462	53.098	40.202	1.00	59.10	O
ATOM	887	C	GLU	A	85	14.866	55.725	35.639	1.00	49.92	C
ATOM	888	O	GLU	A	85	14.159	54.757	35.430	1.00	53.31	O
ATOM	889	N	ALA	A	86	14.430	56.975	35.501	1.00	50.27	N
ATOM	891	CA	ALA	A	86	13.042	57.290	35.151	1.00	50.40	C
ATOM	893	CB	ALA	A	86	12.639	58.641	35.752	1.00	49.66	C
ATOM	897	C	ALA	A	86	12.815	57.312	33.643	1.00	50.49	C
ATOM	898	O	ALA	A	86	12.006	56.562	33.109	1.00	53.68	O
ATOM	899	N	LEU	A	87	13.532	58.193	32.965	1.00	50.97	N
ATOM	901	CA	LEU	A	87	13.357	58.393	31.530	1.00	50.43	C
ATOM	903	CB	LEU	A	87	14.115	59.643	31.093	1.00	48.89	C
ATOM	906	CG	LEU	A	87	13.254	60.833	30.691	1.00	48.28	C
ATOM	908	CD1	LEU	A	87	12.218	61.108	31.740	1.00	46.70	C
ATOM	912	CD2	LEU	A	87	14.162	62.061	30.435	1.00	48.08	C
ATOM	916	C	LEU	A	87	13.766	57.196	30.657	1.00	49.32	C
ATOM	917	O	LEU	A	87	13.161	56.965	29.622	1.00	48.33	O
ATOM	918	N	ILE	A	88	14.785	56.448	31.072	1.00	51.25	N
ATOM	920	CA	ILE	A	88	15.216	55.255	30.338	1.00	51.05	C
ATOM	922	CB	ILE	A	88	16.765	55.275	30.149	1.00	50.39	C
ATOM	924	CG1	ILE	A	88	17.131	56.242	29.022	1.00	49.14	C
ATOM	927	CD1	ILE	A	88	18.400	57.022	29.301	1.00	53.36	C
ATOM	931	CG2	ILE	A	88	17.328	53.904	29.813	1.00	51.32	C
ATOM	935	C	ILE	A	88	14.674	53.931	30.934	1.00	51.93	C
ATOM	936	O	ILE	A	88	14.034	53.185	30.211	1.00	48.91	O
ATOM	937	N	ASP	A	89	14.879	53.649	32.227	1.00	56.69	N
ATOM	939	CA	ASP	A	89	14.497	52.329	32.805	1.00	60.24	C
ATOM	941	CB	ASP	A	89	15.285	52.004	34.085	1.00	62.06	C
ATOM	944	CG	ASP	A	89	16.788	51.973	33.849	1.00	66.60	C
ATOM	945	OD1	ASP	A	89	17.543	52.398	34.756	1.00	68.57	O
ATOM	946	OD2	ASP	A	89	17.302	51.564	32.777	1.00	70.62	O

305/514

Figure 5

ATOM	947	C	ASP	A	89	13.000	52.147	33.060	1.00	59.77	C
ATOM	948	O	ASP	A	89	12.468	51.045	32.908	1.00	59.13	O
ATOM	949	N	LEU	A	90	12.319	53.220	33.435	1.00	60.35	N
ATOM	951	CA	LEU	A	90	10.862	53.224	33.442	1.00	59.92	C
ATOM	953	CB	LEU	A	90	10.339	53.685	34.802	1.00	62.58	C
ATOM	956	CG	LEU	A	90	10.470	52.774	36.033	1.00	63.32	C
ATOM	958	CD1	LEU	A	90	9.957	51.354	35.769	1.00	63.36	C
ATOM	962	CD2	LEU	A	90	11.902	52.749	36.553	1.00	65.74	C
ATOM	966	C	LEU	A	90	10.353	54.126	32.303	1.00	59.13	C
ATOM	967	O	LEU	A	90	9.452	54.940	32.491	1.00	59.17	O
ATOM	968	N	GLY	A	91	10.931	53.952	31.115	1.00	57.81	N
ATOM	970	CA	GLY	A	91	10.658	54.801	29.973	1.00	57.43	C
ATOM	973	C	GLY	A	91	9.193	55.002	29.634	1.00	57.59	C
ATOM	974	O	GLY	A	91	8.766	56.146	29.401	1.00	53.65	O
ATOM	975	N	GLU	A	92	8.435	53.903	29.594	1.00	58.16	N
ATOM	977	CA	GLU	A	92	7.001	53.964	29.282	1.00	59.63	C
ATOM	979	CB	GLU	A	92	6.379	52.563	29.111	1.00	61.16	C
ATOM	982	CG	GLU	A	92	6.013	52.162	27.678	1.00	64.75	C
ATOM	985	CD	GLU	A	92	5.100	53.153	26.965	1.00	65.78	C
ATOM	986	OE1	GLU	A	92	4.081	53.574	27.558	1.00	61.89	O
ATOM	987	OE2	GLU	A	92	5.408	53.514	25.800	1.00	72.35	O
ATOM	988	C	GLU	A	92	6.257	54.706	30.385	1.00	58.48	C
ATOM	989	O	GLU	A	92	5.418	55.567	30.112	1.00	60.80	O
ATOM	990	N	GLU	A	93	6.574	54.374	31.629	1.00	54.37	N
ATOM	992	CA	GLU	A	93	5.893	54.969	32.775	1.00	54.63	C
ATOM	994	CB	GLU	A	93	6.417	54.361	34.085	1.00	56.68	C
ATOM	997	CG	GLU	A	93	5.886	52.970	34.421	1.00	58.27	C
ATOM	1000	CD	GLU	A	93	6.401	51.885	33.489	1.00	59.71	C
ATOM	1001	OE1	GLU	A	93	7.603	51.559	33.542	1.00	63.03	O
ATOM	1002	OE2	GLU	A	93	5.599	51.349	32.696	1.00	64.13	O
ATOM	1003	C	GLU	A	93	6.059	56.485	32.835	1.00	50.70	C
ATOM	1004	O	GLU	A	93	5.226	57.160	33.402	1.00	51.75	O
ATOM	1005	N	PHE	A	94	7.145	57.006	32.269	1.00	49.42	N
ATOM	1007	CA	PHE	A	94	7.463	58.439	32.311	1.00	48.02	C
ATOM	1009	CB	PHE	A	94	8.891	58.629	32.838	1.00	46.40	C
ATOM	1012	CG	PHE	A	94	9.019	58.526	34.331	1.00	42.16	C
ATOM	1013	CD1	PHE	A	94	9.042	59.657	35.114	1.00	41.43	C
ATOM	1015	CE1	PHE	A	94	9.179	59.570	36.482	1.00	43.68	C
ATOM	1017	CZ	PHE	A	94	9.300	58.334	37.091	1.00	42.87	C
ATOM	1019	CE2	PHE	A	94	9.281	57.197	36.329	1.00	43.19	C
ATOM	1021	CD2	PHE	A	94	9.150	57.294	34.949	1.00	47.22	C
ATOM	1023	C	PHE	A	94	7.324	59.127	30.928	1.00	48.72	C
ATOM	1024	O	PHE	A	94	7.802	60.259	30.721	1.00	47.69	O
ATOM	1025	N	SER	A	95	6.644	58.451	30.005	1.00	47.35	N
ATOM	1027	CA	SER	A	95	6.501	58.917	28.637	1.00	47.77	C
ATOM	1029	CB	SER	A	95	6.028	57.773	27.741	1.00	51.35	C
ATOM	1032	OG	SER	A	95	4.613	57.834	27.561	1.00	55.78	O
ATOM	1034	C	SER	A	95	5.513	60.065	28.501	1.00	47.10	C
ATOM	1035	O	SER	A	95	5.492	60.756	27.486	1.00	46.32	O
ATOM	1036	N	GLY	A	96	4.659	60.254	29.498	1.00	45.48	N
ATOM	1038	CA	GLY	A	96	3.635	61.273	29.395	1.00	42.45	C
ATOM	1041	C	GLY	A	96	4.199	62.678	29.349	1.00	41.54	C
ATOM	1042	O	GLY	A	96	5.261	62.968	29.902	1.00	39.29	O
ATOM	1043	N	ARG	A	97	3.478	63.548	28.651	1.00	43.58	N
ATOM	1045	CA	ARG	A	97	3.749	64.983	28.634	1.00	41.22	C
ATOM	1047	CB	ARG	A	97	3.480	65.557	27.250	1.00	39.88	C
ATOM	1050	CG	ARG	A	97	3.429	67.052	27.170	1.00	40.03	C
ATOM	1053	CD	ARG	A	97	4.775	67.706	27.274	1.00	43.34	C
ATOM	1056	NE	ARG	A	97	5.662	67.288	26.179	1.00	47.30	N
ATOM	1058	CZ	ARG	A	97	6.915	66.858	26.319	1.00	42.48	C
ATOM	1059	NH1	ARG	A	97	7.593	66.515	25.241	1.00	43.86	N
ATOM	1062	NH2	ARG	A	97	7.484	66.749	27.506	1.00	41.33	N
ATOM	1065	C	ARG	A	97	2.785	65.584	29.613	1.00	44.40	C
ATOM	1066	O	ARG	A	97	1.631	65.161	29.671	1.00	49.09	O
ATOM	1067	N	GLY	A	98	3.250	66.573	30.364	1.00	44.51	N
ATOM	1069	CA	GLY	A	98	2.448	67.247	31.357	1.00	43.73	C
ATOM	1072	C	GLY	A	98	2.387	68.722	31.057	1.00	45.21	C
ATOM	1073	O	GLY	A	98	3.371	69.319	30.631	1.00	45.34	O
ATOM	1074	N	ILE	A	99	1.231	69.320	31.320	1.00	46.97	N
ATOM	1076	CA	ILE	A	99	0.935	70.654	30.834	1.00	47.91	C
ATOM	1078	CB	ILE	A	99	-0.313	70.605	29.900	1.00	49.72	C
ATOM	1080	CG1	ILE	A	99	-0.275	69.307	29.060	1.00	52.59	C
ATOM	1083	CD1	ILE	A	99	-1.157	69.295	27.829	1.00	55.61	C
ATOM	1087	CG2	ILE	A	99	-0.371	71.853	28.995	1.00	49.85	C
ATOM	1091	C	ILE	A	99	0.726	71.566	32.019	1.00	48.56	C
ATOM	1092	O	ILE	A	99	-0.078	71.272	32.871	1.00	47.75	O

306/514

Figure 5

ATOM	1093	N	PHE	A	100	1.489	72.653	32.084	1.00	51.94	N
ATOM	1095	CA	PHE	A	100	1.243	73.724	33.045	1.00	53.50	C
ATOM	1097	CB	PHE	A	100	2.512	74.574	33.235	1.00	55.89	C
ATOM	1100	CG	PHE	A	100	3.527	73.949	34.159	1.00	57.57	C
ATOM	1101	CD1	PHE	A	100	4.747	73.504	33.680	1.00	58.45	C
ATOM	1103	CE1	PHE	A	100	5.662	72.901	34.532	1.00	60.05	C
ATOM	1105	CZ	PHE	A	100	5.373	72.746	35.879	1.00	59.07	C
ATOM	1107	CE2	PHE	A	100	4.178	73.192	36.372	1.00	61.66	C
ATOM	1109	CD2	PHE	A	100	3.252	73.795	35.512	1.00	60.83	C
ATOM	1111	C	PHE	A	100	0.040	74.611	32.601	1.00	55.02	C
ATOM	1112	O	PHE	A	100	-0.301	74.663	31.412	1.00	53.13	O
ATOM	1113	N	PRO	A	101	-0.613	75.274	33.561	1.00	54.67	N
ATOM	1114	CA	PRO	A	101	-1.755	76.159	33.282	1.00	54.60	C
ATOM	1116	CB	PRO	A	101	-1.775	77.074	34.504	1.00	54.91	C
ATOM	1119	CG	PRO	A	101	-1.370	76.147	35.634	1.00	55.65	C
ATOM	1122	CD	PRO	A	101	-0.348	75.197	35.013	1.00	55.00	C
ATOM	1125	C	PRO	A	101	-1.680	77.000	32.021	1.00	51.83	C
ATOM	1126	O	PRO	A	101	-2.602	76.945	31.232	1.00	52.60	O
ATOM	1127	N	LEU	A	102	-0.619	77.763	31.832	1.00	50.39	N
ATOM	1129	CA	LEU	A	102	-0.546	78.667	30.684	1.00	49.21	C
ATOM	1131	CB	LEU	A	102	0.745	79.480	30.734	1.00	48.07	C
ATOM	1134	CG	LEU	A	102	1.009	80.520	29.638	1.00	49.74	C
ATOM	1136	CD1	LEU	A	102	1.726	79.923	28.437	1.00	46.56	C
ATOM	1140	CD2	LEU	A	102	-0.277	81.272	29.203	1.00	54.03	C
ATOM	1144	C	LEU	A	102	-0.639	77.931	29.349	1.00	49.72	C
ATOM	1145	O	LEU	A	102	-1.327	78.376	28.447	1.00	47.65	O
ATOM	1146	N	ALA	A	103	0.070	76.814	29.221	1.00	51.44	N
ATOM	1148	CA	ALA	A	103	0.044	76.035	27.990	1.00	52.60	C
ATOM	1150	CB	ALA	A	103	1.121	74.957	28.013	1.00	53.40	C
ATOM	1154	C	ALA	A	103	-1.333	75.417	27.746	1.00	52.32	C
ATOM	1155	O	ALA	A	103	-1.799	75.359	26.623	1.00	51.90	O
ATOM	1156	N	GLU	A	104	-1.975	74.955	28.801	1.00	52.67	N
ATOM	1158	CA	GLU	A	104	-3.311	74.416	28.689	1.00	55.34	C
ATOM	1160	CB	GLU	A	104	-3.845	74.060	30.072	1.00	55.38	C
ATOM	1163	CG	GLU	A	104	-4.636	72.774	30.124	1.00	57.52	C
ATOM	1166	CD	GLU	A	104	-4.668	72.206	31.534	1.00	62.35	C
ATOM	1167	OE1	GLU	A	104	-4.759	72.997	32.494	1.00	63.51	O
ATOM	1168	OE2	GLU	A	104	-4.587	70.972	31.695	1.00	66.97	O
ATOM	1169	C	GLU	A	104	-4.221	75.430	28.006	1.00	55.34	C
ATOM	1170	O	GLU	A	104	-4.900	75.099	27.047	1.00	61.03	O
ATOM	1171	N	ARG	A	105	-4.199	76.673	28.468	1.00	54.62	N
ATOM	1173	CA	ARG	A	105	-5.041	77.731	27.903	1.00	56.34	C
ATOM	1175	CB	ARG	A	105	-5.088	78.924	28.848	1.00	57.11	C
ATOM	1178	CG	ARG	A	105	-5.788	78.608	30.142	1.00	63.03	C
ATOM	1181	CD	ARG	A	105	-7.305	78.506	29.999	1.00	66.22	C
ATOM	1184	NE	ARG	A	105	-7.900	79.814	29.732	1.00	65.81	N
ATOM	1186	CZ	ARG	A	105	-8.311	80.672	30.658	1.00	65.18	C
ATOM	1187	NH1	ARG	A	105	-8.831	81.837	30.288	1.00	67.37	N
ATOM	1190	NH2	ARG	A	105	-8.209	80.386	31.949	1.00	64.57	N
ATOM	1193	C	ARG	A	105	-4.617	78.227	26.528	1.00	55.88	C
ATOM	1194	O	ARG	A	105	-5.460	78.662	25.745	1.00	58.71	O
ATOM	1195	N	ALA	A	106	-3.318	78.164	26.241	1.00	56.46	N
ATOM	1197	CA	ALA	A	106	-2.749	78.709	25.003	1.00	53.85	C
ATOM	1199	CB	ALA	A	106	-1.334	79.214	25.236	1.00	50.11	C
ATOM	1203	C	ALA	A	106	-2.742	77.734	23.854	1.00	53.83	C
ATOM	1204	O	ALA	A	106	-2.327	78.103	22.765	1.00	56.04	O
ATOM	1205	N	ASN	A	107	-3.197	76.504	24.090	1.00	57.65	N
ATOM	1207	CA	ASN	A	107	-3.190	75.451	23.066	1.00	61.91	C
ATOM	1209	CB	ASN	A	107	-2.210	74.331	23.439	1.00	61.19	C
ATOM	1212	CG	ASN	A	107	-0.789	74.674	23.070	1.00	62.31	C
ATOM	1213	OD1	ASN	A	107	0.033	75.010	23.925	1.00	66.42	O
ATOM	1214	ND2	ASN	A	107	-0.496	74.623	21.782	1.00	58.55	N
ATOM	1217	C	ASN	A	107	-4.569	74.852	22.800	1.00	64.72	C
ATOM	1218	O	ASN	A	107	-5.110	74.125	23.635	1.00	69.15	O
ATOM	1219	N	ARG	A	108	-5.125	75.176	21.634	1.00	64.73	N
ATOM	1221	CA	ARG	A	108	-6.343	74.549	21.142	1.00	64.12	C
ATOM	1223	CB	ARG	A	108	-7.287	75.593	20.493	1.00	64.53	C
ATOM	1226	CG	ARG	A	108	-8.573	75.846	21.280	1.00	64.43	C
ATOM	1229	CD	ARG	A	108	-8.335	76.562	22.603	1.00	64.96	C
ATOM	1232	NE	ARG	A	108	-9.147	77.757	22.875	1.00	63.73	N
ATOM	1234	CZ	ARG	A	108	-9.375	78.787	22.044	1.00	59.32	C
ATOM	1235	NH1	ARG	A	108	-8.913	78.820	20.792	1.00	53.91	N
ATOM	1238	NH2	ARG	A	108	-10.105	79.808	22.486	1.00	58.65	N
ATOM	1241	C	ARG	A	108	-5.901	73.498	20.134	1.00	62.68	C
ATOM	1242	O	ARG	A	108	-5.520	73.815	18.999	1.00	67.07	O
ATOM	1243	N	GLY	A	109	-5.917	72.247	20.558	1.00	61.37	N

307/514

Figure 5

ATOM	1245	CA	GLY A 109	-5.619	71.146	19.659	1.00	60.30	C
ATOM	1248	C	GLY A 109	-4.197	70.665	19.830	1.00	59.13	C
ATOM	1249	O	GLY A 109	-3.286	71.459	19.986	1.00	59.45	O
ATOM	1250	N	PHE A 110	-4.021	69.352	19.794	1.00	58.15	N
ATOM	1252	CA	PHE A 110	-2.745	68.726	20.071	1.00	57.37	C
ATOM	1254	CB	PHE A 110	-2.937	67.723	21.212	1.00	58.05	C
ATOM	1257	CG	PHE A 110	-3.255	68.350	22.539	1.00	59.34	C
ATOM	1258	CD1	PHE A 110	-2.796	69.625	22.871	1.00	62.51	C
ATOM	1260	CE1	PHE A 110	-3.090	70.190	24.110	1.00	64.76	C
ATOM	1262	CZ	PHE A 110	-3.834	69.474	25.031	1.00	65.31	C
ATOM	1264	CE2	PHE A 110	-4.283	68.198	24.713	1.00	64.31	C
ATOM	1266	CD2	PHE A 110	-3.994	67.646	23.474	1.00	60.93	C
ATOM	1268	C	PHE A 110	-2.148	68.015	18.839	1.00	57.14	C
ATOM	1269	O	PHE A 110	-2.850	67.357	18.075	1.00	57.22	O
ATOM	1270	N	GLY A 111	-0.838	68.146	18.660	1.00	55.91	N
ATOM	1272	CA	GLY A 111	-0.137	67.458	17.591	1.00	55.12	C
ATOM	1275	C	GLY A 111	0.796	66.391	18.126	1.00	51.98	C
ATOM	1276	O	GLY A 111	0.495	65.185	18.112	1.00	49.93	O
ATOM	1277	N	ILE A 112	1.939	66.850	18.619	1.00	51.06	N
ATOM	1279	CA	ILE A 112	3.018	65.956	19.012	1.00	47.88	C
ATOM	1281	CB	ILE A 112	4.045	65.887	17.874	1.00	47.88	C
ATOM	1283	CG1	ILE A 112	5.063	64.788	18.108	1.00	48.95	C
ATOM	1286	CD1	ILE A 112	5.796	64.446	16.841	1.00	48.48	C
ATOM	1290	CG2	ILE A 112	4.729	67.216	17.652	1.00	52.94	C
ATOM	1294	C	ILE A 112	3.631	66.359	20.339	1.00	45.82	C
ATOM	1295	O	ILE A 112	3.807	65.509	21.222	1.00	50.50	O
ATOM	1296	N	VAL A 113	3.900	67.654	20.498	1.00	42.41	N
ATOM	1298	CA	VAL A 113	4.576	68.181	21.678	1.00	41.54	C
ATOM	1300	CB	VAL A 113	4.904	69.688	21.522	1.00	39.04	C
ATOM	1302	CG1	VAL A 113	5.368	70.285	22.834	1.00	41.26	C
ATOM	1306	CG2	VAL A 113	5.961	69.902	20.491	1.00	39.24	C
ATOM	1310	C	VAL A 113	3.737	67.995	22.938	1.00	43.55	C
ATOM	1311	O	VAL A 113	4.288	67.806	24.015	1.00	42.86	O
ATOM	1312	N	PHE A 114	2.413	68.069	22.792	1.00	45.48	N
ATOM	1314	CA	PHE A 114	1.493	68.105	23.928	1.00	45.76	C
ATOM	1316	CB	PHE A 114	0.735	69.434	23.922	1.00	44.95	C
ATOM	1319	CG	PHE A 114	1.577	70.614	24.297	1.00	44.57	C
ATOM	1320	CD1	PHE A 114	1.682	71.707	23.452	1.00	48.79	C
ATOM	1322	CE1	PHE A 114	2.461	72.830	23.810	1.00	46.78	C
ATOM	1324	CZ	PHE A 114	3.129	72.844	25.012	1.00	45.30	C
ATOM	1326	CE2	PHE A 114	3.026	71.751	25.869	1.00	45.58	C
ATOM	1328	CD2	PHE A 114	2.245	70.649	25.511	1.00	44.22	C
ATOM	1330	C	PHE A 114	0.508	66.942	23.944	1.00	45.10	C
ATOM	1331	O	PHE A 114	-0.343	66.846	24.823	1.00	48.12	O
ATOM	1332	N	SER A 115	0.627	66.060	22.967	1.00	48.21	N
ATOM	1334	CA	SER A 115	-0.236	64.903	22.857	1.00	48.98	C
ATOM	1336	CB	SER A 115	-0.079	64.270	21.475	1.00	50.68	C
ATOM	1339	OG	SER A 115	-0.865	64.946	20.529	1.00	57.15	O
ATOM	1341	C	SER A 115	0.140	63.874	23.901	1.00	48.86	C
ATOM	1342	O	SER A 115	1.227	63.933	24.460	1.00	47.57	O
ATOM	1343	N	ASN A 116	-0.753	62.911	24.113	1.00	47.79	N
ATOM	1345	CA	ASN A 116	-0.515	61.772	24.994	1.00	47.41	C
ATOM	1347	CB	ASN A 116	-1.034	62.087	26.401	1.00	46.31	C
ATOM	1350	CG	ASN A 116	0.069	62.546	27.342	1.00	46.00	C
ATOM	1351	OD1	ASN A 116	0.993	61.791	27.646	1.00	49.78	O
ATOM	1352	ND2	ASN A 116	-0.029	63.771	27.815	1.00	36.51	N
ATOM	1355	C	ASN A 116	-1.185	60.520	24.409	1.00	48.10	C
ATOM	1356	O	ASN A 116	-1.844	60.589	23.378	1.00	48.50	O
ATOM	1357	N	GLY A 117	-0.990	59.366	25.026	1.00	49.32	N
ATOM	1359	CA	GLY A 117	-1.635	58.153	24.542	1.00	51.83	C
ATOM	1362	C	GLY A 117	-1.357	57.796	23.084	1.00	54.20	C
ATOM	1363	O	GLY A 117	-0.298	58.116	22.565	1.00	51.58	O
ATOM	1364	N	LYS A 118	-2.313	57.127	22.431	1.00	57.51	N
ATOM	1366	CA	LYS A 118	-2.152	56.696	21.031	1.00	59.71	C
ATOM	1368	CB	LYS A 118	-3.283	55.762	20.497	1.00	64.94	C
ATOM	1371	CG	LYS A 118	-4.293	55.194	21.505	1.00	71.36	C
ATOM	1374	CD	LYS A 118	-5.430	56.199	21.836	1.00	75.38	C
ATOM	1377	CE	LYS A 118	-5.930	56.063	23.292	1.00	74.66	C
ATOM	1380	NZ	LYS A 118	-5.133	56.916	24.237	1.00	71.07	N
ATOM	1384	C	LYS A 118	-2.002	57.877	20.076	1.00	54.70	C
ATOM	1385	O	LYS A 118	-1.320	57.758	19.076	1.00	57.36	O
ATOM	1386	N	LYS A 119	-2.628	59.006	20.352	1.00	49.89	N
ATOM	1388	CA	LYS A 119	-2.446	60.156	19.475	1.00	50.43	C
ATOM	1390	CB	LYS A 119	-3.293	61.324	19.943	1.00	50.47	C
ATOM	1393	CG	LYS A 119	-3.374	62.457	18.970	1.00	54.37	C
ATOM	1396	CD	LYS A 119	-4.486	63.439	19.376	1.00	60.71	C

308/514

Figure 5

ATOM	1399	CE	LYS	A	119	-4.274	64.823	18.759	1.00	63.56	C
ATOM	1402	NZ	LYS	A	119	-5.419	65.242	17.879	1.00	68.27	N
ATOM	1406	C	LYS	A	119	-0.966	60.553	19.389	1.00	52.86	C
ATOM	1407	O	LYS	A	119	-0.408	60.702	18.303	1.00	50.93	O
ATOM	1408	N	TRP	A	120	-0.320	60.694	20.540	1.00	52.67	N
ATOM	1410	CA	TRP	A	120	1.102	60.968	20.565	1.00	50.12	C
ATOM	1412	CB	TRP	A	120	1.559	61.269	21.990	1.00	49.66	C
ATOM	1415	CG	TRP	A	120	3.013	61.229	22.145	1.00	49.11	C
ATOM	1416	CD1	TRP	A	120	3.913	62.137	21.678	1.00	49.51	C
ATOM	1418	NE1	TRP	A	120	5.187	61.744	22.004	1.00	49.33	N
ATOM	1420	CE2	TRP	A	120	5.121	60.567	22.699	1.00	48.36	C
ATOM	1421	CD2	TRP	A	120	3.763	60.218	22.804	1.00	47.73	C
ATOM	1422	CE3	TRP	A	120	3.423	59.045	23.482	1.00	50.33	C
ATOM	1424	CZ3	TRP	A	120	4.428	58.275	24.018	1.00	50.98	C
ATOM	1426	CH2	TRP	A	120	5.770	58.654	23.898	1.00	50.53	C
ATOM	1428	CZ2	TRP	A	120	6.134	59.796	23.247	1.00	47.30	C
ATOM	1430	C	TRP	A	120	1.900	59.801	19.964	1.00	51.47	C
ATOM	1431	O	TRP	A	120	2.703	60.025	19.075	1.00	51.60	O
ATOM	1432	N	LYS	A	121	1.665	58.575	20.439	1.00	51.41	N
ATOM	1434	CA	LYS	A	121	2.448	57.388	20.048	1.00	54.39	C
ATOM	1436	CB	LYS	A	121	1.826	56.089	20.615	1.00	58.07	C
ATOM	1439	CG	LYS	A	121	2.661	55.333	21.673	1.00	64.17	C
ATOM	1442	CD	LYS	A	121	3.559	54.233	21.047	1.00	71.75	C
ATOM	1445	CE	LYS	A	121	4.678	53.750	22.018	1.00	76.17	C
ATOM	1448	NZ	LYS	A	121	5.840	54.721	22.197	1.00	79.05	N
ATOM	1452	C	LYS	A	121	2.540	57.255	18.538	1.00	55.47	C
ATOM	1453	O	LYS	A	121	3.594	56.922	17.995	1.00	55.98	O
ATOM	1454	N	GLU	A	122	1.427	57.548	17.871	1.00	56.52	N
ATOM	1456	CA	GLU	A	122	1.268	57.278	16.454	1.00	55.85	C
ATOM	1458	CB	GLU	A	122	-0.185	56.955	16.127	1.00	59.20	C
ATOM	1461	CG	GLU	A	122	-0.628	55.584	16.602	1.00	63.98	C
ATOM	1464	CD	GLU	A	122	-1.942	55.150	15.989	1.00	68.33	C
ATOM	1465	OE1	GLU	A	122	-2.385	54.029	16.325	1.00	72.42	O
ATOM	1466	OE2	GLU	A	122	-2.519	55.921	15.179	1.00	69.53	O
ATOM	1467	C	GLU	A	122	1.696	58.417	15.581	1.00	52.76	C
ATOM	1468	O	GLU	A	122	2.173	58.186	14.489	1.00	57.78	O
ATOM	1469	N	ILE	A	123	1.495	59.646	16.022	1.00	49.67	N
ATOM	1471	CA	ILE	A	123	1.965	60.788	15.250	1.00	48.01	C
ATOM	1473	CB	ILE	A	123	1.217	62.073	15.663	1.00	47.82	C
ATOM	1475	CG1	ILE	A	123	-0.257	61.935	15.286	1.00	53.60	C
ATOM	1478	CD1	ILE	A	123	-1.114	63.159	15.600	1.00	57.92	C
ATOM	1482	CG2	ILE	A	123	1.813	63.321	14.980	1.00	47.05	C
ATOM	1486	C	ILE	A	123	3.490	60.923	15.389	1.00	46.68	C
ATOM	1487	O	ILE	A	123	4.186	61.268	14.436	1.00	46.44	O
ATOM	1488	N	ARG	A	124	4.014	60.645	16.573	1.00	43.54	N
ATOM	1490	CA	ARG	A	124	5.431	60.795	16.800	1.00	41.95	C
ATOM	1492	CB	ARG	A	124	5.769	60.582	18.259	1.00	40.13	C
ATOM	1495	CG	ARG	A	124	7.217	60.839	18.587	1.00	39.59	C
ATOM	1498	CD	ARG	A	124	7.668	60.095	19.799	1.00	39.32	C
ATOM	1501	NE	ARG	A	124	9.117	60.021	19.912	1.00	40.38	N
ATOM	1503	CZ	ARG	A	124	9.918	61.010	20.332	1.00	41.14	C
ATOM	1504	NH1	ARG	A	124	9.442	62.204	20.664	1.00	38.40	N
ATOM	1507	NH2	ARG	A	124	11.223	60.795	20.417	1.00	39.96	N
ATOM	1510	C	ARG	A	124	6.143	59.773	15.950	1.00	45.13	C
ATOM	1511	O	ARG	A	124	7.159	60.081	15.333	1.00	46.42	O
ATOM	1512	N	ARG	A	125	5.603	58.557	15.925	1.00	46.98	N
ATOM	1514	CA	ARG	A	125	6.173	57.479	15.137	1.00	47.65	C
ATOM	1516	CB	ARG	A	125	5.395	56.181	15.362	1.00	51.70	C
ATOM	1519	CG	ARG	A	125	5.584	55.135	14.288	1.00	59.34	C
ATOM	1522	CD	ARG	A	125	5.388	53.695	14.751	1.00	67.71	C
ATOM	1525	NE	ARG	A	125	6.514	52.855	14.316	1.00	79.38	N
ATOM	1527	CZ	ARG	A	125	6.671	51.556	14.604	1.00	84.24	C
ATOM	1528	NH1	ARG	A	125	5.771	50.893	15.332	1.00	85.90	N
ATOM	1531	NH2	ARG	A	125	7.743	50.911	14.151	1.00	84.59	N
ATOM	1534	C	ARG	A	125	6.170	57.892	13.671	1.00	44.52	C
ATOM	1535	O	ARG	A	125	7.164	57.762	12.983	1.00	48.37	O
ATOM	1536	N	PHE	A	126	5.066	58.434	13.200	1.00	41.96	N
ATOM	1538	CA	PHE	A	126	4.975	58.855	11.805	1.00	41.52	C
ATOM	1540	CB	PHE	A	126	3.591	59.457	11.511	1.00	38.31	C
ATOM	1543	CG	PHE	A	126	3.492	60.131	10.174	1.00	35.89	C
ATOM	1544	CD1	PHE	A	126	3.519	61.503	10.076	1.00	40.13	C
ATOM	1546	CE1	PHE	A	126	3.443	62.125	8.853	1.00	41.93	C
ATOM	1548	CZ	PHE	A	126	3.335	61.382	7.713	1.00	42.67	C
ATOM	1550	CE2	PHE	A	126	3.316	60.003	7.788	1.00	40.01	C
ATOM	1552	CD2	PHE	A	126	3.387	59.387	9.012	1.00	40.11	C
ATOM	1554	C	PHE	A	126	6.031	59.883	11.468	1.00	42.83	C

309/514

Figure 5

ATOM	1555	O	PHE A 126	6.657	59.820	10.422	1.00	46.75	O
ATOM	1556	N	SER A 127	6.204	60.836	12.368	1.00	46.04	N
ATOM	1558	CA	SER A 127	7.041	61.994	12.134	1.00	48.10	C
ATOM	1560	CB	SER A 127	6.808	63.016	13.252	1.00	50.05	C
ATOM	1563	OG	SER A 127	5.438	63.390	13.306	1.00	47.88	O
ATOM	1565	C	SER A 127	8.520	61.623	12.042	1.00	46.15	C
ATOM	1566	O	SER A 127	9.233	62.141	11.198	1.00	49.40	O
ATOM	1567	N	LEU A 128	8.971	60.726	12.901	1.00	43.47	N
ATOM	1569	CA	LEU A 128	10.348	60.243	12.856	1.00	46.04	C
ATOM	1571	CB	LEU A 128	10.588	59.268	13.987	1.00	42.96	C
ATOM	1574	CG	LEU A 128	10.686	59.892	15.358	1.00	44.34	C
ATOM	1576	CD1	LEU A 128	10.647	58.746	16.350	1.00	43.52	C
ATOM	1580	CD2	LEU A 128	11.959	60.761	15.490	1.00	45.14	C
ATOM	1584	C	LEU A 128	10.676	59.527	11.550	1.00	50.43	C
ATOM	1585	O	LEU A 128	11.792	59.653	11.010	1.00	51.40	O
ATOM	1586	N	MET A 129	9.709	58.735	11.097	1.00	53.55	N
ATOM	1588	CA	MET A 129	9.753	58.078	9.808	1.00	56.49	C
ATOM	1590	CB	MET A 129	8.399	57.446	9.492	1.00	62.45	C
ATOM	1593	CG	MET A 129	8.487	56.113	8.790	1.00	69.75	C
ATOM	1596	SD	MET A 129	8.948	54.849	9.981	1.00	82.31	S
ATOM	1597	CE	MET A 129	7.282	53.892	10.141	1.00	79.95	C
ATOM	1601	C	MET A 129	10.076	59.085	8.731	1.00	56.03	C
ATOM	1602	O	MET A 129	11.023	58.907	7.986	1.00	55.52	O
ATOM	1603	N	THR A 130	9.311	60.167	8.671	1.00	54.31	N
ATOM	1605	CA	THR A 130	9.472	61.119	7.586	1.00	56.12	C
ATOM	1607	CB	THR A 130	8.164	61.912	7.334	1.00	56.96	C
ATOM	1609	OG1	THR A 130	8.071	63.006	8.245	1.00	59.65	O
ATOM	1611	CG2	THR A 130	6.912	61.069	7.625	1.00	59.18	C
ATOM	1615	C	THR A 130	10.656	62.070	7.806	1.00	56.43	C
ATOM	1616	O	THR A 130	11.105	62.741	6.871	1.00	60.41	O
ATOM	1617	N	LEU A 131	11.167	62.133	9.027	1.00	55.40	N
ATOM	1619	CA	LEU A 131	12.301	62.994	9.329	1.00	55.81	C
ATOM	1621	CB	LEU A 131	12.223	63.480	10.772	1.00	58.24	C
ATOM	1624	CG	LEU A 131	11.366	64.718	10.986	1.00	60.14	C
ATOM	1626	CD1	LEU A 131	11.154	64.922	12.465	1.00	60.66	C
ATOM	1630	CD2	LEU A 131	12.029	65.926	10.375	1.00	60.60	C
ATOM	1634	C	LEU A 131	13.649	62.309	9.109	1.00	54.44	C
ATOM	1635	O	LEU A 131	14.694	62.954	9.244	1.00	55.06	O
ATOM	1636	N	ARG A 132	13.637	61.015	8.796	1.00	51.19	N
ATOM	1638	CA	ARG A 132	14.867	60.315	8.442	1.00	49.85	C
ATOM	1640	CB	ARG A 132	14.602	58.851	8.132	1.00	50.88	C
ATOM	1643	CG	ARG A 132	14.000	58.042	9.276	1.00	57.04	C
ATOM	1646	CD	ARG A 132	13.512	56.663	8.861	1.00	63.37	C
ATOM	1649	NE	ARG A 132	12.635	56.752	7.685	1.00	71.37	N
ATOM	1651	C2	ARG A 132	12.199	55.724	6.962	1.00	73.89	C
ATOM	1652	NH1	ARG A 132	12.547	54.475	7.269	1.00	76.71	N
ATOM	1655	NH2	ARG A 132	11.409	55.957	5.915	1.00	71.69	N
ATOM	1658	C	ARG A 132	15.424	60.975	7.200	1.00	48.75	C
ATOM	1659	O	ARG A 132	14.673	61.559	6.414	1.00	47.35	O
ATOM	1660	N	ASN A 133	16.735	60.875	7.011	1.00	48.50	N
ATOM	1662	CA	ASN A 133	17.395	61.563	5.905	1.00	48.08	C
ATOM	1664	CB	ASN A 133	18.874	61.177	5.820	1.00	44.64	C
ATOM	1667	CG	ASN A 133	19.678	62.164	5.024	1.00	45.89	C
ATOM	1668	OD1	ASN A 133	20.524	61.792	4.220	1.00	55.72	O
ATOM	1669	ND2	ASN A 133	19.416	63.434	5.236	1.00	48.44	N
ATOM	1672	C	ASN A 133	16.696	61.311	4.562	1.00	51.67	C
ATOM	1673	O	ASN A 133	16.365	62.261	3.837	1.00	43.89	O
ATOM	1674	N	PHE A 134	16.467	60.034	4.245	1.00	55.60	N
ATOM	1676	CA	PHE A 134	15.808	59.670	2.984	1.00	61.26	C
ATOM	1678	CB	PHE A 134	16.629	58.652	2.172	1.00	62.26	C
ATOM	1681	CG	PHE A 134	17.871	59.222	1.537	1.00	63.93	C
ATOM	1682	CD1	PHE A 134	17.790	59.980	0.366	1.00	63.88	C
ATOM	1684	CE1	PHE A 134	18.957	60.498	-0.231	1.00	65.42	C
ATOM	1686	C2	PHE A 134	20.204	60.255	0.356	1.00	62.84	C
ATOM	1688	CE2	PHE A 134	20.284	59.489	1.518	1.00	62.20	C
ATOM	1690	CD2	PHE A 134	19.129	58.978	2.099	1.00	60.58	C
ATOM	1692	C	PHE A 134	14.434	59.098	3.284	1.00	59.66	C
ATOM	1693	O	PHE A 134	14.121	57.988	2.886	1.00	60.82	O
ATOM	1694	N	GLY A 135	13.612	59.863	3.984	1.00	59.60	N
ATOM	1696	CA	GLY A 135	12.353	59.343	4.480	1.00	58.32	C
ATOM	1699	C	GLY A 135	11.146	59.821	3.712	1.00	57.90	C
ATOM	1700	O	GLY A 135	10.051	59.467	4.074	1.00	51.97	O
ATOM	1701	N	MET A 136	11.342	60.624	2.666	1.00	62.38	N
ATOM	1703	CA	MET A 136	10.223	61.203	1.910	1.00	61.45	C
ATOM	1705	CB	MET A 136	9.432	62.214	2.760	1.00	59.70	C
ATOM	1708	CG	MET A 136	10.261	63.222	3.520	1.00	58.21	C

310/514

Figure 5

ATOM	1711	SD	MET	A	136	9.277	64.508	4.356	1.00	57.90	S
ATOM	1712	CE	MET	A	136	10.468	65.793	4.566	1.00	56.52	C
ATOM	1716	C	MET	A	136	10.677	61.864	0.610	1.00	62.10	C
ATOM	1717	O	MET	A	136	10.813	63.083	0.504	1.00	62.35	O
ATOM	1718	N	GLY	A	137	10.898	61.041	-0.395	1.00	63.89	N
ATOM	1720	CA	GLY	A	137	11.162	61.557	-1.718	1.00	64.42	C
ATOM	1723	C	GLY	A	137	12.598	61.386	-2.121	1.00	64.03	C
ATOM	1724	O	GLY	A	137	13.378	60.668	-1.486	1.00	55.86	O
ATOM	1725	N	LYS	A	138	12.933	62.059	-3.210	1.00	65.53	N
ATOM	1727	CA	LYS	A	138	14.271	61.975	-3.776	1.00	67.98	C
ATOM	1729	CB	LYS	A	138	14.252	62.356	-5.268	1.00	70.59	C
ATOM	1732	CG	LYS	A	138	13.207	61.586	-6.095	1.00	72.33	C
ATOM	1735	CD	LYS	A	138	13.452	60.069	-6.062	1.00	72.37	C
ATOM	1738	CE	LYS	A	138	12.774	59.359	-7.248	1.00	73.72	C
ATOM	1741	NZ	LYS	A	138	13.111	59.942	-8.597	1.00	68.91	N
ATOM	1745	C	LYS	A	138	15.225	62.870	-2.994	1.00	62.52	C
ATOM	1746	O	LYS	A	138	16.409	62.550	-2.877	1.00	64.39	O
ATOM	1747	N	ARG	A	139	14.689	63.964	-2.441	1.00	57.18	N
ATOM	1749	CA	ARG	A	139	15.483	64.965	-1.718	1.00	53.63	C
ATOM	1751	CB	ARG	A	139	14.812	66.336	-1.782	1.00	54.62	C
ATOM	1754	CG	ARG	A	139	15.780	67.490	-1.938	1.00	57.33	C
ATOM	1757	CD	ARG	A	139	15.295	68.559	-2.873	1.00	60.51	C
ATOM	1760	NE	ARG	A	139	14.863	69.764	-2.162	1.00	61.30	N
ATOM	1762	CZ	ARG	A	139	15.678	70.708	-1.716	1.00	58.70	C
ATOM	1763	NH1	ARG	A	139	15.169	71.774	-1.108	1.00	64.36	N
ATOM	1766	NH2	ARG	A	139	16.993	70.590	-1.865	1.00	53.81	N
ATOM	1769	C	ARG	A	139	15.707	64.575	-0.262	1.00	48.42	C
ATOM	1770	O	ARG	A	139	14.776	64.262	0.458	1.00	48.97	O
ATOM	1771	N	SER	A	140	16.954	64.598	0.176	1.00	46.12	N
ATOM	1773	CA	SER	A	140	17.251	64.242	1.559	1.00	44.19	C
ATOM	1775	CB	SER	A	140	18.650	63.640	1.674	1.00	41.52	C
ATOM	1778	OG	SER	A	140	19.632	64.603	1.380	1.00	41.89	O
ATOM	1780	C	SER	A	140	17.133	65.451	2.480	1.00	41.55	C
ATOM	1781	O	SER	A	140	17.271	66.614	2.046	1.00	42.46	O
ATOM	1782	N	ILE	A	141	16.904	65.174	3.754	1.00	34.61	N
ATOM	1784	CA	ILE	A	141	17.007	66.207	4.768	1.00	33.30	C
ATOM	1786	CB	ILE	A	141	16.906	65.571	6.169	1.00	33.29	C
ATOM	1788	CG1	ILE	A	141	15.480	65.065	6.432	1.00	35.29	C
ATOM	1791	CD1	ILE	A	141	14.354	66.153	6.336	1.00	36.02	C
ATOM	1795	CG2	ILE	A	141	17.367	66.541	7.250	1.00	33.65	C
ATOM	1799	C	ILE	A	141	18.339	66.938	4.627	1.00	33.98	C
ATOM	1800	O	ILE	A	141	18.395	68.170	4.728	1.00	32.09	O
ATOM	1801	N	GLU	A	142	19.417	66.187	4.385	1.00	35.58	N
ATOM	1803	CA	GLU	A	142	20.736	66.791	4.363	1.00	37.56	C
ATOM	1805	CB	GLU	A	142	21.832	65.765	4.185	1.00	42.88	C
ATOM	1808	CG	GLU	A	142	23.222	66.353	4.413	1.00	44.00	C
ATOM	1811	CD	GLU	A	142	24.308	65.304	4.383	1.00	47.02	C
ATOM	1812	OE1	GLU	A	142	24.080	64.176	4.893	1.00	48.33	O
ATOM	1813	OE2	GLU	A	142	25.382	65.616	3.835	1.00	49.70	O
ATOM	1814	C	GLU	A	142	20.840	67.797	3.267	1.00	36.99	C
ATOM	1815	O	GLU	A	142	21.389	68.847	3.465	1.00	34.74	O
ATOM	1816	N	ASP	A	143	20.283	67.487	2.111	1.00	40.14	N
ATOM	1818	CA	ASP	A	143	20.368	68.404	0.999	1.00	45.19	C
ATOM	1820	CB	ASP	A	143	19.886	67.752	-0.294	1.00	52.89	C
ATOM	1823	CG	ASP	A	143	20.649	68.275	-1.498	1.00	60.06	C
ATOM	1824	OD1	ASP	A	143	20.582	69.507	-1.798	1.00	57.28	O
ATOM	1825	OD2	ASP	A	143	21.390	67.517	-2.159	1.00	70.20	O
ATOM	1826	C	ASP	A	143	19.581	69.670	1.245	1.00	40.39	C
ATOM	1827	O	ASP	A	143	19.942	70.745	0.794	1.00	39.88	O
ATOM	1828	N	ARG	A	144	18.475	69.528	1.946	1.00	38.83	N
ATOM	1830	CA	ARG	A	144	17.761	70.683	2.436	1.00	36.66	C
ATOM	1832	CB	ARG	A	144	16.526	70.220	3.178	1.00	39.28	C
ATOM	1835	CG	ARG	A	144	15.515	69.491	2.289	1.00	41.44	C
ATOM	1838	CD	ARG	A	144	14.285	69.098	3.061	1.00	44.89	C
ATOM	1841	NE	ARG	A	144	13.419	68.146	2.379	1.00	46.72	N
ATOM	1843	CZ	ARG	A	144	12.602	68.441	1.367	1.00	48.65	C
ATOM	1844	NH1	ARG	A	144	12.536	69.670	0.854	1.00	48.96	N
ATOM	1847	NH2	ARG	A	144	11.855	67.482	0.862	1.00	49.97	N
ATOM	1850	C	ARG	A	144	18.682	71.530	3.333	1.00	33.38	C
ATOM	1851	O	ARG	A	144	18.887	72.723	3.078	1.00	32.43	O
ATOM	1852	N	VAL	A	145	19.288	70.921	4.344	1.00	28.27	N
ATOM	1854	CA	VAL	A	145	20.120	71.699	5.259	1.00	27.07	C
ATOM	1856	CB	VAL	A	145	20.533	70.867	6.488	1.00	28.35	C
ATOM	1858	CG1	VAL	A	145	21.457	71.678	7.421	1.00	28.98	C
ATOM	1862	CG2	VAL	A	145	19.271	70.366	7.247	1.00	20.49	C
ATOM	1866	C	VAL	A	145	21.324	72.343	4.529	1.00	28.29	C

311/514

Figure 5

ATOM	1867	O	VAL	A	145	21.615	73.528	4.733	1.00	29.76	O
ATOM	1868	N	GLN	A	146	21.959	71.624	3.610	1.00	29.99	N
ATOM	1870	CA	GLN	A	146	23.050	72.204	2.806	1.00	32.25	C
ATOM	1872	CB	GLN	A	146	23.680	71.151	1.912	1.00	35.37	C
ATOM	1875	CG	GLN	A	146	24.211	69.968	2.669	1.00	39.75	C
ATOM	1878	CD	GLN	A	146	25.081	69.083	1.836	1.00	38.10	C
ATOM	1879	OE1	GLN	A	146	26.254	69.332	1.770	1.00	42.58	O
ATOM	1880	NE2	GLN	A	146	24.521	68.032	1.232	1.00	34.88	N
ATOM	1883	C	GLN	A	146	22.639	73.396	1.937	1.00	32.76	C
ATOM	1884	O	GLN	A	146	23.370	74.371	1.835	1.00	33.88	O
ATOM	1885	N	GLU	A	147	21.469	73.322	1.309	1.00	38.41	N
ATOM	1887	CA	GLU	A	147	20.954	74.447	0.517	1.00	38.47	C
ATOM	1889	CB	GLU	A	147	19.629	74.094	-0.139	1.00	39.29	C
ATOM	1892	CG	GLU	A	147	19.192	75.093	-1.194	1.00	42.12	C
ATOM	1895	CD	GLU	A	147	17.845	74.750	-1.834	1.00	47.56	C
ATOM	1896	OE1	GLU	A	147	17.416	73.558	-1.817	1.00	43.64	O
ATOM	1897	OE2	GLU	A	147	17.223	75.690	-2.382	1.00	48.35	O
ATOM	1898	C	GLU	A	147	20.792	75.659	1.405	1.00	39.35	C
ATOM	1899	O	GLU	A	147	21.222	76.758	1.070	1.00	40.41	O
ATOM	1900	N	GLU	A	148	20.202	75.447	2.570	1.00	40.17	N
ATOM	1902	CA	GLU	A	148	20.104	76.520	3.552	1.00	40.28	C
ATOM	1904	CB	GLU	A	148	19.315	76.034	4.773	1.00	41.17	C
ATOM	1907	CG	GLU	A	148	18.467	77.130	5.397	1.00	45.34	C
ATOM	1910	CD	GLU	A	148	17.477	77.744	4.423	1.00	46.39	C
ATOM	1911	OE1	GLU	A	148	16.708	76.930	3.793	1.00	44.62	O
ATOM	1912	OE2	GLU	A	148	17.488	79.016	4.303	1.00	33.39	O
ATOM	1913	C	GLU	A	148	21.473	77.086	3.986	1.00	36.84	C
ATOM	1914	O	GLU	A	148	21.633	78.288	4.150	1.00	28.95	O
ATOM	1915	N	ALA	A	149	22.460	76.215	4.165	1.00	36.05	N
ATOM	1917	CA	ALA	A	149	23.755	76.660	4.641	1.00	34.36	C
ATOM	1919	CB	ALA	A	149	24.686	75.480	4.885	1.00	34.44	C
ATOM	1923	C	ALA	A	149	24.352	77.659	3.667	1.00	35.13	C
ATOM	1924	O	ALA	A	149	24.697	78.775	4.074	1.00	26.86	O
ATOM	1925	N	ARG	A	150	24.418	77.322	2.372	1.00	39.67	N
ATOM	1927	CA	ARG	A	150	24.936	78.329	1.413	1.00	43.65	C
ATOM	1929	CB	ARG	A	150	25.402	77.736	-0.078	1.00	43.66	C
ATOM	1932	CG	ARG	A	150	24.405	76.959	-0.690	1.00	49.22	C
ATOM	1935	CD	ARG	A	150	24.747	76.843	-2.187	1.00	53.59	C
ATOM	1938	NE	ARG	A	150	23.587	76.389	-2.960	1.00	57.71	N
ATOM	1940	CZ	ARG	A	150	23.081	75.156	-2.900	1.00	57.07	C
ATOM	1941	NH1	ARG	A	150	22.006	74.857	-3.622	1.00	62.26	N
ATOM	1944	NH2	ARG	A	150	23.636	74.216	-2.125	1.00	53.39	N
ATOM	1947	C	ARG	A	150	24.067	79.600	1.205	1.00	39.17	C
ATOM	1948	O	ARG	A	150	24.601	80.613	0.819	1.00	40.73	O
ATOM	1949	N	CYS	A	151	22.770	79.569	1.508	1.00	41.27	N
ATOM	1951	CA	CYS	A	151	21.967	80.812	1.545	1.00	43.12	C
ATOM	1953	CB	CYS	A	151	20.485	80.527	1.518	1.00	43.27	C
ATOM	1956	SG	CYS	A	151	20.027	79.494	0.119	1.00	57.47	S
ATOM	1957	C	CYS	A	151	22.239	81.630	2.771	1.00	42.41	C
ATOM	1958	O	CYS	A	151	22.250	82.852	2.705	1.00	42.89	O
ATOM	1959	N	LEU	A	152	22.430	80.941	3.893	1.00	43.11	N
ATOM	1961	CA	LEU	A	152	22.810	81.573	5.148	1.00	44.10	C
ATOM	1963	CB	LEU	A	152	23.055	80.507	6.218	1.00	46.14	C
ATOM	1966	CG	LEU	A	152	22.789	80.831	7.683	1.00	48.05	C
ATOM	1968	CD1	LEU	A	152	23.258	79.686	8.505	1.00	48.48	C
ATOM	1972	CD2	LEU	A	152	23.506	82.080	8.111	1.00	52.41	C
ATOM	1976	C	LEU	A	152	24.087	82.370	4.939	1.00	42.72	C
ATOM	1977	O	LEU	A	152	24.206	83.493	5.423	1.00	39.30	O
ATOM	1978	N	VAL	A	153	25.031	81.756	4.223	1.00	44.41	N
ATOM	1980	CA	VAL	A	153	26.323	82.360	3.908	1.00	48.03	C
ATOM	1982	CB	VAL	A	153	27.301	81.316	3.310	1.00	49.48	C
ATOM	1984	CG1	VAL	A	153	28.537	81.993	2.698	1.00	49.91	C
ATOM	1988	CG2	VAL	A	153	27.727	80.329	4.376	1.00	50.79	C
ATOM	1992	C	VAL	A	153	26.180	83.543	2.948	1.00	48.42	C
ATOM	1993	O	VAL	A	153	26.801	84.576	3.146	1.00	43.33	O
ATOM	1994	N	GLU	A	154	25.345	83.393	1.926	1.00	53.36	N
ATOM	1996	CA	GLU	A	154	25.060	84.496	1.017	1.00	58.51	C
ATOM	1998	CB	GLU	A	154	24.122	84.043	-0.115	1.00	64.45	C
ATOM	2001	CG	GLU	A	154	24.051	85.008	-1.306	1.00	71.79	C
ATOM	2004	CD	GLU	A	154	25.422	85.521	-1.754	1.00	76.51	C
ATOM	2005	OE1	GLU	A	154	25.593	86.757	-1.866	1.00	75.35	O
ATOM	2006	OE2	GLU	A	154	26.335	84.686	-1.986	1.00	82.18	O
ATOM	2007	C	GLU	A	154	24.488	85.718	1.753	1.00	55.90	C
ATOM	2008	O	GLU	A	154	24.933	86.848	1.531	1.00	56.80	O
ATOM	2009	N	GLU	A	155	23.538	85.496	2.655	1.00	53.55	N
ATOM	2011	CA	GLU	A	155	22.923	86.605	3.398	1.00	54.56	C

Figure 5

ATOM	2013	CB	GLU	A	155	21.669	86.153	4.155	1.00	54.70	C
ATOM	2016	CG	GLU	A	155	20.437	86.012	3.287	1.00	58.49	C
ATOM	2019	CD	GLU	A	155	19.997	87.311	2.637	1.00	58.74	C
ATOM	2020	OE1	GLU	A	155	19.935	87.334	1.391	1.00	58.52	O
ATOM	2021	OE2	GLU	A	155	19.724	88.291	3.375	1.00	57.96	O
ATOM	2022	C	GLU	A	155	23.873	87.263	4.385	1.00	51.95	C
ATOM	2023	O	GLU	A	155	23.731	88.447	4.690	1.00	53.66	O
ATOM	2024	N	LEU	A	156	24.823	86.496	4.904	1.00	48.31	N
ATOM	2026	CA	LEU	A	156	25.786	87.048	5.830	1.00	46.54	C
ATOM	2028	CB	LEU	A	156	26.454	85.932	6.634	1.00	47.86	C
ATOM	2031	CG	LEU	A	156	25.615	85.273	7.737	1.00	45.75	C
ATOM	2033	CD1	LEU	A	156	26.284	83.995	8.204	1.00	44.99	C
ATOM	2037	CD2	LEU	A	156	25.410	86.214	8.918	1.00	47.40	C
ATOM	2041	C	LEU	A	156	26.795	87.854	5.018	1.00	45.39	C
ATOM	2042	O	LEU	A	156	27.451	88.765	5.527	1.00	35.77	O
ATOM	2043	N	ARG	A	157	26.896	87.512	3.738	1.00	48.77	N
ATOM	2045	CA	ARG	A	157	27.772	88.216	2.822	1.00	53.69	C
ATOM	2047	CB	ARG	A	157	28.093	87.362	1.600	1.00	56.23	C
ATOM	2050	CG	ARG	A	157	29.527	87.543	1.119	1.00	62.61	C
ATOM	2053	CD	ARG	A	157	29.781	86.950	-0.245	1.00	65.68	C
ATOM	2056	NE	ARG	A	157	29.685	85.489	-0.223	1.00	64.97	N
ATOM	2058	CZ	ARG	A	157	30.667	84.671	0.147	1.00	64.06	C
ATOM	2059	NH1	ARG	A	157	31.846	85.148	0.548	1.00	61.90	N
ATOM	2062	NH2	ARG	A	157	30.463	83.359	0.129	1.00	66.43	N
ATOM	2065	C	ARG	A	157	27.162	89.548	2.413	1.00	54.60	C
ATOM	2066	O	ARG	A	157	27.885	90.480	2.064	1.00	56.46	O
ATOM	2067	N	LYS	A	158	25.837	89.639	2.478	1.00	56.05	N
ATOM	2069	CA	LYS	A	158	25.152	90.908	2.281	1.00	56.82	C
ATOM	2071	CB	LYS	A	158	23.623	90.736	2.219	1.00	58.92	C
ATOM	2074	CG	LYS	A	158	23.124	90.098	0.900	1.00	64.95	C
ATOM	2077	CD	LYS	A	158	21.590	90.275	0.698	1.00	71.12	C
ATOM	2080	CE	LYS	A	158	20.972	89.273	-0.318	1.00	72.65	C
ATOM	2083	NZ	LYS	A	158	20.892	89.780	-1.715	1.00	74.50	N
ATOM	2087	C	LYS	A	158	25.524	91.896	3.369	1.00	56.32	C
ATOM	2088	O	LYS	A	158	25.559	93.088	3.102	1.00	60.21	O
ATOM	2089	N	THR	A	159	25.840	91.425	4.575	1.00	56.43	N
ATOM	2091	CA	THR	A	159	26.150	92.346	5.686	1.00	54.95	C
ATOM	2093	CB	THR	A	159	26.237	91.625	7.067	1.00	55.64	C
ATOM	2095	OG1	THR	A	159	27.495	90.929	7.214	1.00	55.93	O
ATOM	2097	CG2	THR	A	159	25.131	90.585	7.228	1.00	52.60	C
ATOM	2101	C	THR	A	159	27.407	93.184	5.493	1.00	56.29	C
ATOM	2102	O	THR	A	159	27.663	94.074	6.306	1.00	55.37	O
ATOM	2103	N	LYS	A	160	28.191	92.907	4.445	1.00	60.69	N
ATOM	2105	CA	LYS	A	160	29.292	93.797	4.028	1.00	65.70	C
ATOM	2107	CB	LYS	A	160	28.729	95.127	3.467	1.00	68.27	C
ATOM	2110	CG	LYS	A	160	28.795	95.275	1.931	1.00	74.88	C
ATOM	2113	CD	LYS	A	160	28.280	96.677	1.453	1.00	80.57	C
ATOM	2116	CE	LYS	A	160	29.295	97.408	0.519	1.00	83.25	C
ATOM	2119	NZ	LYS	A	160	28.878	98.789	0.088	1.00	83.93	N
ATOM	2123	C	LYS	A	160	30.311	94.069	5.160	1.00	66.08	C
ATOM	2124	O	LYS	A	160	30.830	95.178	5.290	1.00	67.10	O
ATOM	2125	N	ALA	A	161	30.573	93.053	5.984	1.00	66.43	N
ATOM	2127	CA	ALA	A	161	31.623	93.101	7.004	1.00	66.06	C
ATOM	2129	CB	ALA	A	161	32.999	93.218	6.344	1.00	66.69	C
ATOM	2133	C	ALA	A	161	31.419	94.231	8.003	1.00	65.07	C
ATOM	2134	O	ALA	A	161	32.377	94.796	8.529	1.00	62.43	O
ATOM	2135	N	SER	A	162	30.163	94.545	8.275	1.00	65.45	N
ATOM	2137	CA	SER	A	162	29.832	95.657	9.150	1.00	68.18	C
ATOM	2139	CB	SER	A	162	28.994	96.691	8.393	1.00	70.83	C
ATOM	2142	OG	SER	A	162	27.735	96.147	8.039	1.00	72.63	O
ATOM	2144	C	SER	A	162	29.036	95.135	10.324	1.00	66.16	C
ATOM	2145	O	SER	A	162	28.299	94.160	10.176	1.00	64.15	O
ATOM	2146	N	PRO	A	163	29.148	95.795	11.478	1.00	65.13	N
ATOM	2147	CA	PRO	A	163	28.485	95.320	12.694	1.00	63.42	C
ATOM	2149	CB	PRO	A	163	28.584	96.520	13.654	1.00	63.20	C
ATOM	2152	CG	PRO	A	163	29.119	97.638	12.852	1.00	63.18	C
ATOM	2155	CD	PRO	A	163	29.900	97.034	11.733	1.00	63.70	C
ATOM	2158	C	PRO	A	163	27.035	94.950	12.439	1.00	61.26	C
ATOM	2159	O	PRO	A	163	26.341	95.615	11.672	1.00	64.84	O
ATOM	2160	N	CYS	A	164	26.596	93.880	13.082	1.00	58.64	N
ATOM	2162	CA	CYS	A	164	25.249	93.392	12.905	1.00	54.97	C
ATOM	2164	CB	CYS	A	164	25.148	92.681	11.562	1.00	56.83	C
ATOM	2167	SG	CYS	A	164	25.054	90.894	11.708	1.00	55.47	S
ATOM	2168	C	CYS	A	164	24.825	92.451	14.030	1.00	50.89	C
ATOM	2169	O	CYS	A	164	25.629	91.740	14.618	1.00	47.31	O
ATOM	2170	N	ASP	A	165	23.537	92.465	14.313	1.00	48.25	N

313/514

Figure 5

ATOM	2172	CA	ASP	A	165	22.941	91.575	15.282	1.00	45.59	C
ATOM	2174	CB	ASP	A	165	21.793	92.291	15.991	1.00	44.75	C
ATOM	2177	CG	ASP	A	165	20.934	91.359	16.801	1.00	46.52	C
ATOM	2178	OD1	ASP	A	165	19.878	91.782	17.323	1.00	44.23	O
ATOM	2179	OD2	ASP	A	165	21.226	90.171	16.966	1.00	49.56	O
ATOM	2180	C	ASP	A	165	22.449	90.363	14.487	1.00	45.22	C
ATOM	2181	O	ASP	A	165	21.518	90.489	13.687	1.00	49.44	O
ATOM	2182	N	PRO	A	166	23.054	89.192	14.694	1.00	40.66	N
ATOM	2183	CA	PRO	A	166	22.727	88.023	13.873	1.00	36.45	C
ATOM	2185	CB	PRO	A	166	23.899	87.078	14.138	1.00	37.27	C
ATOM	2188	CG	PRO	A	166	24.336	87.400	15.516	1.00	38.75	C
ATOM	2191	CD	PRO	A	166	24.061	88.866	15.724	1.00	40.23	C
ATOM	2194	C	PRO	A	166	21.403	87.383	14.246	1.00	33.37	C
ATOM	2195	O	PRO	A	166	20.977	86.471	13.559	1.00	35.64	O
ATOM	2196	N	THR	A	167	20.731	87.881	15.281	1.00	32.44	N
ATOM	2198	CA	THR	A	167	19.504	87.248	15.787	1.00	33.73	C
ATOM	2200	CB	THR	A	167	18.769	88.183	16.760	1.00	31.29	C
ATOM	2202	OG1	THR	A	167	19.681	88.693	17.735	1.00	26.72	O
ATOM	2204	CG2	THR	A	167	17.704	87.421	17.562	1.00	26.17	C
ATOM	2208	C	THR	A	167	18.508	86.857	14.707	1.00	36.83	C
ATOM	2209	O	THR	A	167	17.893	85.789	14.777	1.00	36.36	O
ATOM	2210	N	PHE	A	168	18.346	87.746	13.729	1.00	40.24	N
ATOM	2212	CA	PHE	A	168	17.313	87.591	12.723	1.00	42.35	C
ATOM	2214	CB	PHE	A	168	16.921	88.929	12.074	1.00	41.38	C
ATOM	2217	CG	PHE	A	168	15.983	88.754	10.927	1.00	37.74	C
ATOM	2218	CD1	PHE	A	168	16.446	88.848	9.607	1.00	41.02	C
ATOM	2220	CE1	PHE	A	168	15.578	88.637	8.528	1.00	40.89	C
ATOM	2222	C2	PHE	A	168	14.224	88.309	8.775	1.00	39.68	C
ATOM	2224	CE2	PHE	A	168	13.765	88.191	10.089	1.00	37.83	C
ATOM	2226	CD2	PHE	A	168	14.656	88.408	11.161	1.00	35.99	C
ATOM	2228	C	PHE	A	168	17.760	86.604	11.655	1.00	40.71	C
ATOM	2229	O	PHE	A	168	17.052	85.626	11.383	1.00	34.14	O
ATOM	2230	N	ILE	A	169	18.926	86.858	11.054	1.00	40.23	N
ATOM	2232	CA	ILE	A	169	19.434	85.958	10.005	1.00	39.29	C
ATOM	2234	CB	ILE	A	169	20.757	86.458	9.488	1.00	39.44	C
ATOM	2236	CG1	ILE	A	169	20.580	87.814	8.808	1.00	45.10	C
ATOM	2239	CD1	ILE	A	169	21.856	88.693	8.817	1.00	47.89	C
ATOM	2243	CG2	ILE	A	169	21.322	85.486	8.486	1.00	43.82	C
ATOM	2247	C	ILE	A	169	19.546	84.480	10.488	1.00	35.83	C
ATOM	2248	O	ILE	A	169	19.010	83.592	9.870	1.00	35.12	O
ATOM	2249	N	LEU	A	170	20.210	84.239	11.608	1.00	32.18	N
ATOM	2251	CA	LEU	A	170	20.224	82.918	12.241	1.00	33.85	C
ATOM	2253	CB	LEU	A	170	21.017	82.959	13.553	1.00	32.98	C
ATOM	2256	CG	LEU	A	170	22.551	82.890	13.547	1.00	29.96	C
ATOM	2258	CD1	LEU	A	170	23.203	83.468	12.372	1.00	29.51	C
ATOM	2262	CD2	LEU	A	170	23.065	83.579	14.770	1.00	31.09	C
ATOM	2266	C	LEU	A	170	18.847	82.364	12.553	1.00	37.36	C
ATOM	2267	O	LEU	A	170	18.662	81.158	12.548	1.00	40.31	O
ATOM	2268	N	GLY	A	171	17.891	83.227	12.894	1.00	40.57	N
ATOM	2270	CA	GLY	A	171	16.523	82.786	13.128	1.00	38.18	C
ATOM	2273	C	GLY	A	171	15.853	82.228	11.877	1.00	39.26	C
ATOM	2274	O	GLY	A	171	15.087	81.265	11.967	1.00	35.50	O
ATOM	2275	N	CYS	A	172	16.154	82.814	10.714	1.00	40.37	N
ATOM	2277	CA	CYS	A	172	15.505	82.442	9.442	1.00	44.27	C
ATOM	2279	CB	CYS	A	172	15.772	83.501	8.351	1.00	47.47	C
ATOM	2282	SG	CYS	A	172	15.048	85.131	8.657	1.00	48.52	S
ATOM	2283	C	CYS	A	172	15.940	81.066	8.917	1.00	43.39	C
ATOM	2284	O	CYS	A	172	15.110	80.303	8.401	1.00	42.85	O
ATOM	2285	N	ALA	A	173	17.228	80.747	9.048	1.00	36.70	N
ATOM	2287	CA	ALA	A	173	17.735	79.499	8.508	1.00	32.73	C
ATOM	2289	CB	ALA	A	173	19.210	79.430	8.655	1.00	35.53	C
ATOM	2293	C	ALA	A	173	17.043	78.222	9.058	1.00	35.97	C
ATOM	2294	O	ALA	A	173	16.622	77.405	8.243	1.00	43.22	O
ATOM	2295	N	PRO	A	174	16.902	78.023	10.384	1.00	32.20	N
ATOM	2296	CA	PRO	A	174	16.187	76.858	10.913	1.00	28.23	C
ATOM	2298	CB	PRO	A	174	16.326	76.997	12.410	1.00	24.23	C
ATOM	2301	CG	PRO	A	174	17.414	77.892	12.612	1.00	29.97	C
ATOM	2304	CD	PRO	A	174	17.430	78.845	11.471	1.00	33.27	C
ATOM	2307	C	PRO	A	174	14.704	76.865	10.541	1.00	33.65	C
ATOM	2308	O	PRO	A	174	14.158	75.829	10.191	1.00	30.35	O
ATOM	2309	N	CYS	A	175	14.059	78.022	10.607	1.00	38.10	N
ATOM	2311	CA	CYS	A	175	12.654	78.107	10.238	1.00	39.75	C
ATOM	2313	CB	CYS	A	175	12.143	79.543	10.391	1.00	41.38	C
ATOM	2316	SG	CYS	A	175	10.421	79.693	9.894	1.00	47.82	S
ATOM	2317	C	CYS	A	175	12.484	77.638	8.787	1.00	38.34	C
ATOM	2318	O	CYS	A	175	11.584	76.856	8.465	1.00	32.04	O

314/514

Figure 5

ATOM	2319	N	ASN	A	176	13.394	78.091	7.930	1.00	37.00	N
ATOM	2321	CA	ASN	A	176	13.362	77.743	6.512	1.00	35.80	C
ATOM	2323	CB	ASN	A	176	14.341	78.622	5.745	1.00	35.67	C
ATOM	2326	CG	ASN	A	176	13.734	79.195	4.499	1.00	35.23	C
ATOM	2327	OD1	ASN	A	176	12.577	78.940	4.189	1.00	36.40	O
ATOM	2328	ND2	ASN	A	176	14.505	79.985	3.784	1.00	34.37	N
ATOM	2331	C	ASN	A	176	13.633	76.269	6.181	1.00	30.89	C
ATOM	2332	O	ASN	A	176	13.188	75.765	5.162	1.00	28.37	O
ATOM	2333	N	VAL	A	177	14.358	75.591	7.053	1.00	29.80	N
ATOM	2335	CA	VAL	A	177	14.573	74.163	6.913	1.00	30.27	C
ATOM	2337	CB	VAL	A	177	15.600	73.662	7.940	1.00	30.07	C
ATOM	2339	CG1	VAL	A	177	15.641	72.133	7.980	1.00	30.96	C
ATOM	2343	CG2	VAL	A	177	16.942	74.210	7.643	1.00	26.94	C
ATOM	2347	C	VAL	A	177	13.279	73.434	7.157	1.00	30.62	C
ATOM	2348	O	VAL	A	177	12.983	72.431	6.497	1.00	30.45	O
ATOM	2349	N	ILE	A	178	12.527	73.915	8.143	1.00	32.05	N
ATOM	2351	CA	ILE	A	178	11.217	73.352	8.425	1.00	35.82	C
ATOM	2353	CB	ILE	A	178	10.730	73.719	9.868	1.00	39.05	C
ATOM	2355	CG1	ILE	A	178	11.500	72.895	10.906	1.00	42.49	C
ATOM	2358	CD1	ILE	A	178	12.835	73.471	11.314	1.00	48.45	C
ATOM	2362	CG2	ILE	A	178	9.283	73.322	10.098	1.00	37.53	C
ATOM	2366	C	ILE	A	178	10.240	73.719	7.285	1.00	31.93	C
ATOM	2367	O	ILE	A	178	9.518	72.843	6.810	1.00	28.92	O
ATOM	2368	N	CYS	A	179	10.274	74.959	6.791	1.00	31.89	N
ATOM	2370	CA	CYS	A	179	9.500	75.323	5.586	1.00	32.66	C
ATOM	2372	CB	CYS	A	179	9.809	76.728	5.115	1.00	30.18	C
ATOM	2375	SG	CYS	A	179	9.120	77.981	6.208	1.00	36.53	S
ATOM	2376	C	CYS	A	179	9.762	74.339	4.445	1.00	32.80	C
ATOM	2377	O	CYS	A	179	8.828	73.831	3.832	1.00	32.63	O
ATOM	2378	N	SER	A	180	11.026	74.037	4.188	1.00	32.16	N
ATOM	2380	CA	SER	A	180	11.372	73.151	3.082	1.00	32.38	C
ATOM	2382	CB	SER	A	180	12.868	73.242	2.759	1.00	34.29	C
ATOM	2385	OG	SER	A	180	13.292	72.158	1.939	1.00	40.31	O
ATOM	2387	C	SER	A	180	10.953	71.717	3.387	1.00	29.96	C
ATOM	2388	O	SER	A	180	10.608	70.980	2.497	1.00	30.63	O
ATOM	2389	N	ILE	A	181	10.955	71.319	4.647	1.00	33.14	N
ATOM	2391	CA	ILE	A	181	10.601	69.946	4.996	1.00	33.11	C
ATOM	2393	CB	ILE	A	181	11.064	69.624	6.443	1.00	34.14	C
ATOM	2395	CG1	ILE	A	181	12.565	69.334	6.495	1.00	32.42	C
ATOM	2398	CD1	ILE	A	181	13.055	69.028	7.918	1.00	33.02	C
ATOM	2402	CG2	ILE	A	181	10.286	68.415	7.042	1.00	30.28	C
ATOM	2406	C	ILE	A	181	9.094	69.738	4.892	1.00	36.68	C
ATOM	2407	O	ILE	A	181	8.644	68.650	4.555	1.00	35.38	O
ATOM	2408	N	ILE	A	182	8.324	70.774	5.230	1.00	38.18	N
ATOM	2410	CA	ILE	A	182	6.867	70.679	5.285	1.00	40.14	C
ATOM	2412	CB	ILE	A	182	6.261	71.686	6.337	1.00	43.67	C
ATOM	2414	CG1	ILE	A	182	6.874	71.526	7.745	1.00	42.58	C
ATOM	2417	CD1	ILE	A	182	6.299	70.414	8.560	1.00	44.10	C
ATOM	2421	CG2	ILE	A	182	4.717	71.598	6.357	1.00	40.36	C
ATOM	2425	C	ILE	A	182	6.263	70.995	3.910	1.00	38.74	C
ATOM	2426	O	ILE	A	182	5.252	70.412	3.553	1.00	34.78	O
ATOM	2427	N	PHE	A	183	6.878	71.931	3.180	1.00	39.11	N
ATOM	2429	CA	PHE	A	183	6.375	72.443	1.897	1.00	43.95	C
ATOM	2431	CB	PHE	A	183	6.283	73.976	1.939	1.00	42.42	C
ATOM	2434	CG	PHE	A	183	5.619	74.557	3.161	1.00	39.70	C
ATOM	2435	CD1	PHE	A	183	6.051	75.776	3.661	1.00	41.57	C
ATOM	2437	CE1	PHE	A	183	5.441	76.362	4.775	1.00	42.25	C
ATOM	2439	CZ	PHE	A	183	4.383	75.741	5.385	1.00	38.50	C
ATOM	2441	CE2	PHE	A	183	3.930	74.537	4.886	1.00	43.12	C
ATOM	2443	CD2	PHE	A	183	4.541	73.954	3.764	1.00	42.45	C
ATOM	2445	C	PHE	A	183	7.240	72.096	0.637	1.00	50.81	C
ATOM	2446	O	PHE	A	183	7.042	72.668	-0.425	1.00	54.29	O
ATOM	2447	N	HIS	A	184	8.203	71.189	0.753	1.00	57.66	N
ATOM	2449	CA	HIS	A	184	9.186	70.893	-0.321	1.00	63.00	C
ATOM	2451	CB	HIS	A	184	8.526	70.332	-1.589	1.00	67.13	C
ATOM	2454	CG	HIS	A	184	9.408	69.372	-2.344	1.00	75.19	C
ATOM	2455	ND1	HIS	A	184	9.175	69.007	-3.653	1.00	83.48	N
ATOM	2457	CE1	HIS	A	184	10.104	68.146	-4.043	1.00	82.69	C
ATOM	2459	NE2	HIS	A	184	10.933	67.945	-3.035	1.00	80.28	N
ATOM	2461	CD2	HIS	A	184	10.521	68.699	-1.963	1.00	76.50	C
ATOM	2463	C	HIS	A	184	10.127	71.994	-0.795	1.00	61.31	C
ATOM	2464	O	HIS	A	184	11.017	71.733	-1.598	1.00	65.36	O
ATOM	2465	N	LYS	A	185	9.962	73.211	-0.327	1.00	60.37	N
ATOM	2467	CA	LYS	A	185	10.511	74.323	-1.067	1.00	60.66	C
ATOM	2469	CB	LYS	A	185	9.526	74.660	-2.206	1.00	65.10	C
ATOM	2472	CG	LYS	A	185	9.923	75.770	-3.184	1.00	67.90	C

315/514

Figure 5

ATOM	2475	CD	LYS	A	185	8.673	76.512	-3.744	1.00	69.66	C
ATOM	2478	CE	LYS	A	185	8.723	78.058	-3.494	1.00	72.47	C
ATOM	2481	NZ	LYS	A	185	8.413	78.518	-2.086	1.00	69.48	N
ATOM	2485	C	LYS	A	185	10.694	75.477	-0.114	1.00	57.15	C
ATOM	2486	O	LYS	A	185	9.725	76.042	0.405	1.00	58.77	O
ATOM	2487	N	ARG	A	186	11.944	75.816	0.137	1.00	52.65	N
ATOM	2489	CA	ARG	A	186	12.246	76.972	0.943	1.00	49.80	C
ATOM	2491	CB	ARG	A	186	13.749	77.067	1.177	1.00	50.42	C
ATOM	2494	CG	ARG	A	186	14.548	77.620	0.000	1.00	47.13	C
ATOM	2497	CD	ARG	A	186	16.018	77.627	0.223	1.00	45.71	C
ATOM	2500	NE	ARG	A	186	16.439	78.662	1.173	1.00	45.96	N
ATOM	2502	CZ	ARG	A	186	16.669	79.932	0.858	1.00	45.84	C
ATOM	2503	NH1	ARG	A	186	16.480	80.372	-0.373	1.00	45.35	N
ATOM	2506	NH2	ARG	A	186	17.080	80.782	1.788	1.00	46.24	N
ATOM	2509	C	ARG	A	186	11.735	78.249	0.274	1.00	51.88	C
ATOM	2510	O	ARG	A	186	11.399	78.263	-0.917	1.00	54.16	O
ATOM	2511	N	PHE	A	187	11.680	79.315	1.064	1.00	50.39	N
ATOM	2513	CA	PHE	A	187	11.311	80.636	0.602	1.00	49.44	C
ATOM	2515	CB	PHE	A	187	10.361	81.283	1.595	1.00	49.32	C
ATOM	2518	CG	PHE	A	187	9.076	80.558	1.769	1.00	45.79	C
ATOM	2519	CD1	PHE	A	187	8.821	79.845	2.922	1.00	45.38	C
ATOM	2521	CE1	PHE	A	187	7.621	79.196	3.093	1.00	50.10	C
ATOM	2523	CZ	PHE	A	187	6.661	79.255	2.102	1.00	51.53	C
ATOM	2525	CE2	PHE	A	187	6.904	79.978	0.953	1.00	50.11	C
ATOM	2527	CD2	PHE	A	187	8.105	80.628	0.796	1.00	48.18	C
ATOM	2529	C	PHE	A	187	12.532	81.490	0.586	1.00	48.68	C
ATOM	2530	O	PHE	A	187	13.327	81.382	1.491	1.00	49.53	O
ATOM	2531	N	ASP	A	188	12.674	82.363	-0.404	1.00	51.42	N
ATOM	2533	CA	ASP	A	188	13.615	83.482	-0.286	1.00	54.11	C
ATOM	2535	CB	ASP	A	188	13.474	84.450	-1.467	1.00	56.25	C
ATOM	2538	CG	ASP	A	188	14.674	85.370	-1.617	1.00	61.68	C
ATOM	2539	OD1	ASP	A	188	14.801	86.334	-0.833	1.00	65.45	O
ATOM	2540	OD2	ASP	A	188	15.549	85.218	-2.498	1.00	69.39	O
ATOM	2541	C	ASP	A	188	13.307	84.196	1.035	1.00	53.31	C
ATOM	2542	O	ASP	A	188	12.157	84.245	1.457	1.00	52.92	O
ATOM	2543	N	TYR	A	189	14.328	84.728	1.697	1.00	54.95	N
ATOM	2545	CA	TYR	A	189	14.147	85.360	3.011	1.00	57.69	C
ATOM	2547	CB	TYR	A	189	15.508	85.598	3.691	1.00	58.20	C
ATOM	2550	CG	TYR	A	189	16.351	84.367	4.057	1.00	58.28	C
ATOM	2551	CD1	TYR	A	189	17.731	84.410	3.934	1.00	55.33	C
ATOM	2553	CE1	TYR	A	189	18.545	83.323	4.270	1.00	54.84	C
ATOM	2555	CZ	TYR	A	189	17.980	82.170	4.750	1.00	54.57	C
ATOM	2556	OH	TYR	A	189	18.786	81.095	5.066	1.00	52.78	O
ATOM	2558	CE2	TYR	A	189	16.603	82.088	4.899	1.00	57.86	C
ATOM	2560	CD2	TYR	A	189	15.786	83.190	4.554	1.00	59.01	C
ATOM	2562	C	TYR	A	189	13.396	86.708	2.966	1.00	59.64	C
ATOM	2563	O	TYR	A	189	13.168	87.331	4.010	1.00	60.26	O
ATOM	2564	N	LYS	A	190	13.070	87.176	1.762	1.00	61.50	N
ATOM	2566	CA	LYS	A	190	12.296	88.410	1.560	1.00	63.56	C
ATOM	2568	CB	LYS	A	190	12.960	89.286	0.484	1.00	65.95	C
ATOM	2571	CG	LYS	A	190	14.114	90.185	0.981	1.00	69.10	C
ATOM	2574	CD	LYS	A	190	15.494	89.809	0.375	1.00	74.58	C
ATOM	2577	CE	LYS	A	190	15.487	89.583	-1.157	1.00	76.46	C
ATOM	2580	NZ	LYS	A	190	14.482	90.405	-1.914	1.00	76.18	N
ATOM	2584	C	LYS	A	190	10.831	88.094	1.174	1.00	58.32	C
ATOM	2585	O	LYS	A	190	9.954	88.949	1.272	1.00	56.42	O
ATOM	2586	N	ASP	A	191	10.585	86.869	0.727	1.00	53.42	N
ATOM	2588	CA	ASP	A	191	9.231	86.364	0.553	1.00	54.37	C
ATOM	2590	CB	ASP	A	191	9.246	84.840	0.412	1.00	54.94	C
ATOM	2593	CG	ASP	A	191	7.947	84.281	-0.151	1.00	58.73	C
ATOM	2594	OD1	ASP	A	191	8.046	83.511	-1.128	1.00	62.18	O
ATOM	2595	OD2	ASP	A	191	6.798	84.523	0.311	1.00	57.59	O
ATOM	2596	C	ASP	A	191	8.381	86.749	1.744	1.00	54.60	C
ATOM	2597	O	ASP	A	191	8.742	86.473	2.881	1.00	56.67	O
ATOM	2598	N	GLN	A	192	7.243	87.378	1.480	1.00	54.58	N
ATOM	2600	CA	GLN	A	192	6.360	87.853	2.542	1.00	52.89	C
ATOM	2602	CB	GLN	A	192	5.377	88.896	1.975	1.00	52.65	C
ATOM	2605	CG	GLN	A	192	4.540	89.640	3.028	1.00	51.74	C
ATOM	2608	CD	GLN	A	192	5.388	90.448	3.978	1.00	51.89	C
ATOM	2609	OE1	GLN	A	192	6.241	91.213	3.540	1.00	52.72	O
ATOM	2610	NE2	GLN	A	192	5.177	90.257	5.282	1.00	48.28	N
ATOM	2613	C	GLN	A	192	5.617	86.713	3.295	1.00	49.16	C
ATOM	2614	O	GLN	A	192	5.283	86.869	4.461	1.00	45.83	O
ATOM	2615	N	GLN	A	193	5.352	85.583	2.642	1.00	46.84	N
ATOM	2617	CA	GLN	A	193	4.797	84.428	3.348	1.00	49.33	C
ATOM	2619	CB	GLN	A	193	4.736	83.184	2.439	1.00	51.92	C

316/514

Figure 5

ATOM	2622	CG	GLN	A	193	3.870	83.278	1.167	1.00	55.09	C
ATOM	2625	CD	GLN	A	193	3.564	81.902	0.506	1.00	58.87	C
ATOM	2626	OE1	GLN	A	193	3.320	80.897	1.189	1.00	55.73	O
ATOM	2627	NE2	GLN	A	193	3.554	81.876	-0.827	1.00	62.20	N
ATOM	2630	C	GLN	A	193	5.724	84.135	4.541	1.00	50.69	C
ATOM	2631	O	GLN	A	193	5.298	84.025	5.694	1.00	48.49	O
ATOM	2632	N	PHE	A	194	7.011	84.048	4.214	1.00	47.17	N
ATOM	2634	CA	PHE	A	194	8.067	83.688	5.125	1.00	42.15	C
ATOM	2636	CB	PHE	A	194	9.393	83.594	4.358	1.00	42.17	C
ATOM	2639	CG	PHE	A	194	10.518	83.068	5.184	1.00	39.67	C
ATOM	2640	CD1	PHE	A	194	11.556	83.898	5.564	1.00	35.94	C
ATOM	2642	CE1	PHE	A	194	12.563	83.427	6.334	1.00	32.98	C
ATOM	2644	CZ	PHE	A	194	12.556	82.119	6.754	1.00	35.97	C
ATOM	2646	CE2	PHE	A	194	11.518	81.276	6.413	1.00	33.26	C
ATOM	2648	CD2	PHE	A	194	10.513	81.751	5.626	1.00	37.61	C
ATOM	2650	C	PHE	A	194	8.221	84.655	6.274	1.00	43.38	C
ATOM	2651	O	PHE	A	194	8.341	84.222	7.419	1.00	45.14	O
ATOM	2652	N	LEU	A	195	8.228	85.955	5.987	1.00	42.94	N
ATOM	2654	CA	LEU	A	195	8.374	86.969	7.039	1.00	42.68	C
ATOM	2656	CB	LEU	A	195	8.513	88.353	6.437	1.00	46.79	C
ATOM	2659	CG	LEU	A	195	9.769	88.587	5.611	1.00	50.19	C
ATOM	2661	CD1	LEU	A	195	9.539	89.744	4.650	1.00	50.37	C
ATOM	2665	CD2	LEU	A	195	10.947	88.855	6.521	1.00	52.11	C
ATOM	2669	C	LEU	A	195	7.222	87.014	8.040	1.00	41.37	C
ATOM	2670	O	LEU	A	195	7.438	87.420	9.183	1.00	39.33	O
ATOM	2671	N	ASN	A	196	6.014	86.629	7.602	1.00	41.66	N
ATOM	2673	CA	ASN	A	196	4.803	86.601	8.451	1.00	41.30	C
ATOM	2675	CB	ASN	A	196	3.523	86.410	7.626	1.00	39.02	C
ATOM	2678	CG	ASN	A	196	3.215	87.571	6.700	1.00	41.86	C
ATOM	2679	OD1	ASN	A	196	2.618	87.351	5.645	1.00	43.84	O
ATOM	2680	ND2	ASN	A	196	3.596	88.802	7.079	1.00	35.35	N
ATOM	2683	C	ASN	A	196	4.832	85.445	9.434	1.00	42.99	C
ATOM	2684	O	ASN	A	196	4.434	85.568	10.604	1.00	44.63	O
ATOM	2685	N	LEU	A	197	5.248	84.300	8.913	1.00	44.26	N
ATOM	2687	CA	LEU	A	197	5.456	83.108	9.694	1.00	42.43	C
ATOM	2689	CB	LEU	A	197	5.865	82.007	8.754	1.00	44.28	C
ATOM	2692	CG	LEU	A	197	6.133	80.645	9.351	1.00	48.34	C
ATOM	2694	CD1	LEU	A	197	4.959	80.194	10.203	1.00	50.31	C
ATOM	2698	CD2	LEU	A	197	6.405	79.684	8.201	1.00	49.42	C
ATOM	2702	C	LEU	A	197	6.566	83.387	10.698	1.00	45.66	C
ATOM	2703	O	LEU	A	197	6.488	82.978	11.858	1.00	42.76	O
ATOM	2704	N	MET	A	198	7.584	84.124	10.255	1.00	47.43	N
ATOM	2706	CA	MET	A	198	8.740	84.435	11.095	1.00	49.82	C
ATOM	2708	CB	MET	A	198	9.859	85.035	10.238	1.00	52.28	C
ATOM	2711	CG	MET	A	198	11.276	84.759	10.698	1.00	55.14	C
ATOM	2714	SD	MET	A	198	11.839	83.052	10.516	1.00	60.24	S
ATOM	2715	CE	MET	A	198	12.203	82.627	12.372	1.00	57.85	C
ATOM	2719	C	MET	A	198	8.310	85.392	12.204	1.00	50.53	C
ATOM	2720	O	MET	A	198	8.573	85.165	13.366	1.00	55.66	O
ATOM	2721	N	GLU	A	199	7.603	86.439	11.832	1.00	51.13	N
ATOM	2723	CA	GLU	A	199	7.091	87.427	12.772	1.00	53.76	C
ATOM	2725	CB	GLU	A	199	6.313	88.462	11.965	1.00	55.79	C
ATOM	2728	CG	GLU	A	199	5.763	89.649	12.719	1.00	60.71	C
ATOM	2731	CD	GLU	A	199	4.840	90.467	11.823	1.00	68.78	C
ATOM	2732	OE1	GLU	A	199	5.288	91.510	11.291	1.00	70.05	O
ATOM	2733	OE2	GLU	A	199	3.671	90.044	11.620	1.00	73.02	O
ATOM	2734	C	GLU	A	199	6.192	86.800	13.845	1.00	51.44	C
ATOM	2735	O	GLU	A	199	6.199	87.204	15.008	1.00	50.03	O
ATOM	2736	N	LYS	A	200	5.426	85.803	13.430	1.00	50.25	N
ATOM	2738	CA	LYS	A	200	4.429	85.163	14.273	1.00	49.18	C
ATOM	2740	CB	LYS	A	200	3.440	84.372	13.375	1.00	51.30	C
ATOM	2743	CG	LYS	A	200	1.929	84.494	13.670	1.00	56.17	C
ATOM	2746	CD	LYS	A	200	1.332	85.934	13.638	1.00	57.06	C
ATOM	2749	CE	LYS	A	200	1.592	86.687	12.349	1.00	56.82	C
ATOM	2752	NZ	LYS	A	200	1.230	88.106	12.542	1.00	55.60	N
ATOM	2756	C	LYS	A	200	5.160	84.241	15.259	1.00	47.56	C
ATOM	2757	O	LYS	A	200	4.780	84.132	16.425	1.00	47.66	O
ATOM	2758	N	LEU	A	201	6.227	83.587	14.789	1.00	44.36	N
ATOM	2760	CA	LEU	A	201	6.975	82.642	15.624	1.00	39.52	C
ATOM	2762	CB	LEU	A	201	7.919	81.806	14.786	1.00	36.24	C
ATOM	2765	CG	LEU	A	201	7.252	80.681	14.008	1.00	35.44	C
ATOM	2767	CD1	LEU	A	201	8.230	80.091	13.018	1.00	35.58	C
ATOM	2771	CD2	LEU	A	201	6.740	79.617	14.941	1.00	35.36	C
ATOM	2775	C	LEU	A	201	7.774	83.353	16.692	1.00	37.81	C
ATOM	2776	O	LEU	A	201	7.807	82.898	17.833	1.00	31.41	O
ATOM	2777	N	ASN	A	202	8.382	84.481	16.305	1.00	40.64	N

317/514

Figure 5

ATOM	2779	CA	ASN	A	202	9.241	85.287	17.180	1.00	43.14	C
ATOM	2781	CB	ASN	A	202	10.071	86.326	16.398	1.00	42.69	C
ATOM	2784	CG	ASN	A	202	11.172	85.689	15.531	1.00	46.05	C
ATOM	2785	OD1	ASN	A	202	11.711	86.327	14.640	1.00	50.20	O
ATOM	2786	ND2	ASN	A	202	11.489	84.430	15.788	1.00	50.10	N
ATOM	2789	C	ASN	A	202	8.443	85.984	18.259	1.00	47.46	C
ATOM	2790	O	ASN	A	202	8.926	86.127	19.389	1.00	50.12	O
ATOM	2791	N	GLU	A	203	7.220	86.402	17.929	1.00	50.66	N
ATOM	2793	CA	GLU	A	203	6.345	87.044	18.916	1.00	51.50	C
ATOM	2795	CB	GLU	A	203	5.112	87.631	18.238	1.00	57.63	C
ATOM	2798	CG	GLU	A	203	4.750	89.049	18.661	1.00	61.15	C
ATOM	2801	CD	GLU	A	203	3.256	89.269	18.592	1.00	65.93	C
ATOM	2802	OE1	GLU	A	203	2.689	89.008	17.503	1.00	70.80	O
ATOM	2803	OE2	GLU	A	203	2.653	89.657	19.628	1.00	71.90	O
ATOM	2804	C	GLU	A	203	5.939	86.056	19.995	1.00	45.44	C
ATOM	2805	O	GLU	A	203	5.925	86.377	21.170	1.00	46.07	O
ATOM	2806	N	ASN	A	204	5.637	84.836	19.599	1.00	46.07	N
ATOM	2808	CA	ASN	A	204	5.390	83.768	20.568	1.00	46.43	C
ATOM	2810	CB	ASN	A	204	5.004	82.491	19.831	1.00	47.59	C
ATOM	2813	CG	ASN	A	204	3.523	82.433	19.485	1.00	48.09	C
ATOM	2814	OD1	ASN	A	204	2.990	81.358	19.222	1.00	52.90	O
ATOM	2815	ND2	ASN	A	204	2.856	83.579	19.483	1.00	46.97	N
ATOM	2818	C	ASN	A	204	6.568	83.507	21.523	1.00	46.76	C
ATOM	2819	O	ASN	A	204	6.373	83.199	22.689	1.00	45.84	O
ATOM	2820	N	ILE	A	205	7.788	83.643	21.017	1.00	47.49	N
ATOM	2822	CA	ILE	A	205	8.992	83.492	21.826	1.00	46.00	C
ATOM	2824	CB	ILE	A	205	10.202	83.354	20.883	1.00	43.90	C
ATOM	2826	CG1	ILE	A	205	10.162	82.007	20.154	1.00	45.62	C
ATOM	2829	CD1	ILE	A	205	10.894	82.037	18.774	1.00	48.88	C
ATOM	2833	CG2	ILE	A	205	11.495	83.476	21.637	1.00	41.05	C
ATOM	2837	C	ILE	A	205	9.199	84.650	22.834	1.00	47.40	C
ATOM	2838	O	ILE	A	205	9.728	84.441	23.925	1.00	48.95	O
ATOM	2839	N	GLU	A	206	8.794	85.854	22.444	1.00	50.70	N
ATOM	2841	CA	GLU	A	206	8.860	87.064	23.266	1.00	54.17	C
ATOM	2843	CB	GLU	A	206	8.567	88.259	22.367	1.00	60.32	C
ATOM	2846	CG	GLU	A	206	8.713	89.641	22.979	1.00	68.00	C
ATOM	2849	CD	GLU	A	206	9.237	90.639	21.954	1.00	73.22	C
ATOM	2850	OE1	GLU	A	206	10.129	91.449	22.299	1.00	78.78	O
ATOM	2851	OE2	GLU	A	206	8.766	90.594	20.789	1.00	78.02	O
ATOM	2852	C	GLU	A	206	7.831	87.024	24.395	1.00	53.40	C
ATOM	2853	O	GLU	A	206	8.155	87.223	25.560	1.00	51.08	O
ATOM	2854	N	ILE	A	207	6.580	86.758	24.038	1.00	50.83	N
ATOM	2856	CA	ILE	A	207	5.533	86.575	25.026	1.00	48.09	C
ATOM	2858	CB	ILE	A	207	4.205	86.175	24.341	1.00	48.12	C
ATOM	2860	CG1	ILE	A	207	3.639	87.327	23.508	1.00	52.10	C
ATOM	2863	CD1	ILE	A	207	2.685	86.853	22.410	1.00	53.71	C
ATOM	2867	CG2	ILE	A	207	3.183	85.762	25.353	1.00	47.85	C
ATOM	2871	C	ILE	A	207	5.966	85.496	26.017	1.00	48.59	C
ATOM	2872	O	ILE	A	207	5.845	85.680	27.221	1.00	46.31	O
ATOM	2873	N	LEU	A	208	6.488	84.382	25.502	1.00	48.71	N
ATOM	2875	CA	LEU	A	208	6.795	83.215	26.324	1.00	48.91	C
ATOM	2877	CB	LEU	A	208	6.947	81.974	25.451	1.00	47.58	C
ATOM	2880	CG	LEU	A	208	5.642	81.334	24.968	1.00	51.21	C
ATOM	2882	CD1	LEU	A	208	5.877	80.283	23.879	1.00	49.13	C
ATOM	2886	CD2	LEU	A	208	4.852	80.712	26.142	1.00	54.28	C
ATOM	2890	C	LEU	A	208	8.046	83.382	27.204	1.00	51.49	C
ATOM	2891	O	LEU	A	208	8.259	82.589	28.121	1.00	49.89	O
ATOM	2892	N	SER	A	209	8.852	84.407	26.937	1.00	54.38	N
ATOM	2894	CA	SER	A	209	10.083	84.655	27.698	1.00	59.49	C
ATOM	2896	CB	SER	A	209	11.211	85.028	26.730	1.00	60.13	C
ATOM	2899	OG	SER	A	209	11.047	86.364	26.299	1.00	61.15	O
ATOM	2901	C	SER	A	209	9.948	85.744	28.791	1.00	60.23	C
ATOM	2902	O	SER	A	209	10.915	86.059	29.496	1.00	59.89	O
ATOM	2903	N	SER	A	210	8.751	86.311	28.915	1.00	61.29	N
ATOM	2905	CA	SER	A	210	8.443	87.289	29.952	1.00	61.46	C
ATOM	2907	CB	SER	A	210	7.082	87.936	29.690	1.00	62.69	C
ATOM	2910	OG	SER	A	210	6.486	88.417	30.881	1.00	64.51	O
ATOM	2912	C	SER	A	210	8.435	86.593	31.305	1.00	61.08	C
ATOM	2913	O	SER	A	210	7.770	85.580	31.464	1.00	57.03	O
ATOM	2914	N	PRO	A	211	9.192	87.120	32.267	1.00	63.64	N
ATOM	2915	CA	PRO	A	211	9.287	86.518	33.609	1.00	62.21	C
ATOM	2917	CB	PRO	A	211	10.045	87.570	34.408	1.00	64.15	C
ATOM	2920	CG	PRO	A	211	10.935	88.202	33.385	1.00	66.77	C
ATOM	2923	CD	PRO	A	211	10.079	88.295	32.130	1.00	64.74	C
ATOM	2926	C	PRO	A	211	7.974	86.226	34.287	1.00	61.22	C
ATOM	2927	O	PRO	A	211	7.900	85.284	35.065	1.00	54.39	O

318/514

Figure 5

ATOM	2928	N	TRP	A	212	6.937	86.997	34.011	1.00	65.86	N
ATOM	2930	CA	TRP	A	212	5.697	86.750	34.719	1.00	72.63	C
ATOM	2932	CB	TRP	A	212	5.062	88.092	35.201	1.00	76.71	C
ATOM	2935	CG	TRP	A	212	4.011	88.788	34.388	1.00	88.22	C
ATOM	2936	CD1	TRP	A	212	3.923	88.882	33.026	1.00	93.41	C
ATOM	2938	NE1	TRP	A	212	2.815	89.620	32.669	1.00	96.35	N
ATOM	2940	CE2	TRP	A	212	2.166	90.039	33.804	1.00	97.47	C
ATOM	2941	CD2	TRP	A	212	2.898	89.541	34.912	1.00	96.01	C
ATOM	2942	CE3	TRP	A	212	2.437	89.835	36.213	1.00	97.14	C
ATOM	2944	CZ3	TRP	A	212	1.281	90.604	36.362	1.00	98.81	C
ATOM	2946	CH2	TRP	A	212	0.580	91.089	35.233	1.00	99.46	C
ATOM	2948	CZ2	TRP	A	212	1.005	90.817	33.952	1.00	98.51	C
ATOM	2950	C	TRP	A	212	4.799	85.678	34.036	1.00	70.15	C
ATOM	2951	O	TRP	A	212	3.594	85.643	34.230	1.00	75.34	O
ATOM	2952	N	ILE	A	213	5.442	84.752	33.308	1.00	68.79	N
ATOM	2954	CA	ILE	A	213	4.830	83.509	32.811	1.00	67.36	C
ATOM	2956	CB	ILE	A	213	5.586	82.938	31.555	1.00	66.57	C
ATOM	2958	CG1	ILE	A	213	5.360	83.819	30.324	1.00	66.86	C
ATOM	2961	CD1	ILE	A	213	4.087	83.531	29.549	1.00	67.87	C
ATOM	2965	CG2	ILE	A	213	5.178	81.463	31.245	1.00	61.89	C
ATOM	2969	C	ILE	A	213	4.820	82.423	33.879	1.00	68.71	C
ATOM	2970	O	ILE	A	213	3.929	81.571	33.887	1.00	72.27	O
ATOM	2971	N	GLN	A	214	5.827	82.395	34.745	1.00	68.14	N
ATOM	2973	CA	GLN	A	214	5.780	81.454	35.861	1.00	67.56	C
ATOM	2975	CB	GLN	A	214	7.170	81.194	36.444	1.00	68.84	C
ATOM	2978	CG	GLN	A	214	7.501	79.702	36.540	1.00	70.83	C
ATOM	2981	CD	GLN	A	214	7.420	78.997	35.182	1.00	74.02	C
ATOM	2982	OE1	GLN	A	214	7.870	79.539	34.167	1.00	77.71	O
ATOM	2983	NE2	GLN	A	214	6.834	77.803	35.161	1.00	71.90	N
ATOM	2986	C	GLN	A	214	4.797	81.926	36.944	1.00	65.97	C
ATOM	2987	O	GLN	A	214	4.375	81.135	37.803	1.00	63.32	O
ATOM	2988	N	VAL	A	215	4.420	83.206	36.893	1.00	61.28	N
ATOM	2990	CA	VAL	A	215	3.383	83.711	37.781	1.00	62.05	C
ATOM	2992	CB	VAL	A	215	3.252	85.251	37.732	1.00	63.15	C
ATOM	2994	CG1	VAL	A	215	2.097	85.743	38.620	1.00	62.15	C
ATOM	2998	CG2	VAL	A	215	4.524	85.892	38.174	1.00	65.08	C
ATOM	3002	C	VAL	A	215	2.038	83.094	37.424	1.00	59.68	C
ATOM	3003	O	VAL	A	215	1.206	82.878	38.295	1.00	63.70	O
ATOM	3004	N	TYR	A	216	1.808	82.833	36.146	1.00	55.28	N
ATOM	3006	CA	TYR	A	216	0.575	82.182	35.745	1.00	52.57	C
ATOM	3008	CB	TYR	A	216	0.431	82.195	34.245	1.00	53.55	C
ATOM	3011	CG	TYR	A	216	0.139	83.550	33.652	1.00	56.08	C
ATOM	3012	CD1	TYR	A	216	-1.064	84.190	33.906	1.00	58.62	C
ATOM	3014	CE1	TYR	A	216	-1.354	85.430	33.345	1.00	58.60	C
ATOM	3016	CZ	TYR	A	216	-0.440	86.022	32.506	1.00	60.16	C
ATOM	3017	OH	TYR	A	216	-0.751	87.240	31.952	1.00	66.31	O
ATOM	3019	CE2	TYR	A	216	0.767	85.399	32.226	1.00	58.16	C
ATOM	3021	CD2	TYR	A	216	1.047	84.171	32.797	1.00	56.58	C
ATOM	3023	C	TYR	A	216	0.506	80.746	36.242	1.00	50.90	C
ATOM	3024	O	TYR	A	216	-0.537	80.309	36.718	1.00	49.20	O
ATOM	3025	N	ASN	A	217	1.618	80.020	36.151	1.00	51.67	N
ATOM	3027	CA	ASN	A	217	1.647	78.609	36.542	1.00	51.80	C
ATOM	3029	CB	ASN	A	217	2.897	77.916	36.003	1.00	52.32	C
ATOM	3032	CG	ASN	A	217	2.925	77.853	34.483	1.00	54.34	C
ATOM	3033	OD1	ASN	A	217	1.889	77.695	33.825	1.00	53.14	O
ATOM	3034	ND2	ASN	A	217	4.119	77.982	33.916	1.00	54.77	N
ATOM	3037	C	ASN	A	217	1.539	78.418	38.046	1.00	53.34	C
ATOM	3038	O	ASN	A	217	1.116	77.371	38.515	1.00	53.22	O
ATOM	3039	N	ASN	A	218	1.907	79.440	38.801	1.00	57.80	N
ATOM	3041	CA	ASN	A	218	1.730	79.411	40.243	1.00	61.66	C
ATOM	3043	CB	ASN	A	218	2.739	80.339	40.935	1.00	65.93	C
ATOM	3046	CG	ASN	A	218	4.023	79.619	41.295	1.00	68.66	C
ATOM	3047	OD1	ASN	A	218	4.721	79.102	40.420	1.00	70.17	O
ATOM	3048	ND2	ASN	A	218	4.321	79.557	42.586	1.00	71.46	N
ATOM	3051	C	ASN	A	218	0.300	79.782	40.619	1.00	61.90	C
ATOM	3052	O	ASN	A	218	-0.313	79.087	41.418	1.00	62.42	O
ATOM	3053	N	PHE	A	219	-0.227	80.869	40.047	1.00	60.25	N
ATOM	3055	CA	PHE	A	219	-1.598	81.307	40.302	1.00	59.29	C
ATOM	3057	CB	PHE	A	219	-1.594	82.689	40.931	1.00	61.54	C
ATOM	3060	CG	PHE	A	219	-0.519	82.887	41.923	1.00	65.00	C
ATOM	3061	CD1	PHE	A	219	0.170	84.085	41.973	1.00	71.57	C
ATOM	3063	CE1	PHE	A	219	1.170	84.291	42.908	1.00	74.73	C
ATOM	3065	CZ	PHE	A	219	1.482	83.284	43.803	1.00	75.22	C
ATOM	3067	CE2	PHE	A	219	0.788	82.078	43.760	1.00	72.97	C
ATOM	3069	CD2	PHE	A	219	-0.205	81.893	42.828	1.00	69.65	C
ATOM	3071	C	PHE	A	219	-2.417	81.358	39.021	1.00	57.50	C

319/514

Figure 5

ATOM	3072	O	PHE A 219	-2.590	82.438	38.453	1.00	59.24	O
ATOM	3073	N	PRO A 220	-2.918	80.214	38.554	1.00	54.68	N
ATOM	3074	CA	PRO A 220	-3.673	80.169	37.296	1.00	54.01	C
ATOM	3076	CB	PRO A 220	-4.018	78.685	37.128	1.00	52.15	C
ATOM	3079	CG	PRO A 220	-3.746	78.054	38.389	1.00	52.55	C
ATOM	3082	CD	PRO A 220	-2.780	78.881	39.153	1.00	54.22	C
ATOM	3085	C	PRO A 220	-4.928	81.058	37.258	1.00	55.78	C
ATOM	3086	O	PRO A 220	-5.319	81.453	36.171	1.00	59.42	O
ATOM	3087	N	ALA A 221	-5.528	81.367	38.402	1.00	56.62	N
ATOM	3089	CA	ALA A 221	-6.605	82.355	38.485	1.00	57.16	C
ATOM	3091	CB	ALA A 221	-6.872	82.710	39.946	1.00	59.39	C
ATOM	3095	C	ALA A 221	-6.310	83.629	37.693	1.00	55.85	C
ATOM	3096	O	ALA A 221	-7.184	84.180	37.049	1.00	57.09	O
ATOM	3097	N	LEU A 222	-5.070	84.084	37.745	1.00	58.19	N
ATOM	3099	CA	LEU A 222	-4.635	85.263	37.004	1.00	60.63	C
ATOM	3101	CB	LEU A 222	-3.182	85.584	37.346	1.00	61.13	C
ATOM	3104	CG	LEU A 222	-2.904	86.065	38.766	1.00	64.57	C
ATOM	3106	CD1	LEU A 222	-1.462	86.509	38.827	1.00	66.52	C
ATOM	3110	CD2	LEU A 222	-3.839	87.196	39.208	1.00	63.43	C
ATOM	3114	C	LEU A 222	-4.742	85.176	35.480	1.00	61.19	C
ATOM	3115	O	LEU A 222	-4.657	86.193	34.806	1.00	60.36	O
ATOM	3116	N	LEU A 223	-4.883	83.982	34.924	1.00	62.41	N
ATOM	3118	CA	LEU A 223	-5.058	83.867	33.482	1.00	62.51	C
ATOM	3120	CB	LEU A 223	-5.107	82.406	33.059	1.00	62.23	C
ATOM	3123	CG	LEU A 223	-3.751	81.706	33.109	1.00	60.05	C
ATOM	3125	CD1	LEU A 223	-3.896	80.186	33.308	1.00	59.50	C
ATOM	3129	CD2	LEU A 223	-2.987	82.017	31.847	1.00	59.98	C
ATOM	3133	C	LEU A 223	-6.323	84.608	33.040	1.00	64.96	C
ATOM	3134	O	LEU A 223	-6.294	85.337	32.035	1.00	64.77	O
ATOM	3135	N	ASP A 224	-7.405	84.450	33.810	1.00	65.49	N
ATOM	3137	CA	ASP A 224	-8.658	85.184	33.563	1.00	67.38	C
ATOM	3139	CB	ASP A 224	-9.808	84.674	34.438	1.00	66.21	C
ATOM	3142	CG	ASP A 224	-9.785	83.177	34.625	1.00	69.83	C
ATOM	3143	OD1	ASP A 224	-10.275	82.461	33.718	1.00	72.82	O
ATOM	3144	OD2	ASP A 224	-9.298	82.631	35.648	1.00	67.52	O
ATOM	3145	C	ASP A 224	-8.515	86.701	33.772	1.00	68.14	C
ATOM	3146	O	ASP A 224	-8.988	87.473	32.953	1.00	69.23	O
ATOM	3147	N	TYR A 225	-7.858	87.124	34.853	1.00	70.59	N
ATOM	3149	CA	TYR A 225	-7.687	88.564	35.149	1.00	73.27	C
ATOM	3151	CB	TYR A 225	-7.299	88.794	36.634	1.00	73.47	C
ATOM	3154	CG	TYR A 225	-8.339	88.285	37.633	1.00	76.54	C
ATOM	3155	CD1	TYR A 225	-8.069	87.194	38.470	1.00	79.95	C
ATOM	3157	CE1	TYR A 225	-9.025	86.720	39.375	1.00	81.08	C
ATOM	3159	CZ	TYR A 225	-10.266	87.339	39.442	1.00	81.46	C
ATOM	3160	OH	TYR A 225	-11.217	86.893	40.326	1.00	81.15	O
ATOM	3162	CE2	TYR A 225	-10.556	88.417	38.625	1.00	79.83	C
ATOM	3164	CD2	TYR A 225	-9.595	88.886	37.730	1.00	78.61	C
ATOM	3166	C	TYR A 225	-6.685	89.275	34.220	1.00	72.38	C
ATOM	3167	O	TYR A 225	-6.679	90.506	34.160	1.00	73.38	O
ATOM	3168	N	PHE A 226	-5.852	88.502	33.511	1.00	72.88	N
ATOM	3170	CA	PHE A 226	-4.867	89.030	32.550	1.00	72.94	C
ATOM	3172	CB	PHE A 226	-3.481	89.130	33.188	1.00	74.16	C
ATOM	3175	CG	PHE A 226	-3.410	90.084	34.326	1.00	78.08	C
ATOM	3176	CD1	PHE A 226	-3.686	89.658	35.620	1.00	80.01	C
ATOM	3178	CE1	PHE A 226	-3.623	90.538	36.680	1.00	79.75	C
ATOM	3180	CZ	PHE A 226	-3.280	91.856	36.455	1.00	80.67	C
ATOM	3182	CE2	PHE A 226	-2.998	92.293	35.165	1.00	81.05	C
ATOM	3184	CD2	PHE A 226	-3.066	91.410	34.111	1.00	80.50	C
ATOM	3186	C	PHE A 226	-4.757	88.150	31.305	1.00	71.13	C
ATOM	3187	O	PHE A 226	-3.695	87.592	31.030	1.00	71.60	O
ATOM	3188	N	PRO A 227	-5.823	88.056	30.518	1.00	70.87	N
ATOM	3189	CA	PRO A 227	-5.830	87.125	29.388	1.00	69.87	C
ATOM	3191	CB	PRO A 227	-7.322	87.005	29.025	1.00	70.75	C
ATOM	3194	CG	PRO A 227	-8.066	87.883	29.976	1.00	72.12	C
ATOM	3197	CD	PRO A 227	-7.074	88.828	30.586	1.00	72.55	C
ATOM	3200	C	PRO A 227	-5.006	87.578	28.174	1.00	66.45	C
ATOM	3201	O	PRO A 227	-4.903	86.789	27.247	1.00	66.06	O
ATOM	3202	N	GLY A 228	-4.442	88.786	28.169	1.00	65.33	N
ATOM	3204	CA	GLY A 228	-3.568	89.229	27.083	1.00	64.08	C
ATOM	3207	C	GLY A 228	-2.633	88.129	26.594	1.00	62.88	C
ATOM	3208	O	GLY A 228	-2.652	87.747	25.428	1.00	63.67	O
ATOM	3209	N	THR A 229	-1.817	87.603	27.499	1.00	61.75	N
ATOM	3211	CA	THR A 229	-1.003	86.423	27.212	1.00	59.21	C
ATOM	3213	CB	THR A 229	-0.049	86.111	28.373	1.00	58.11	C
ATOM	3215	OG1	THR A 229	0.645	87.291	28.797	1.00	52.63	O
ATOM	3217	CG2	THR A 229	1.032	85.117	27.930	1.00	57.82	C

320/514

Figure 5

ATOM	3221	C	THR	A	229	-1.929	85.250	27.114	1.00	58.21	C
ATOM	3222	O	THR	A	229	-2.748	85.055	28.006	1.00	63.36	O
ATOM	3223	N	HIS	A	230	-1.770	84.444	26.082	1.00	55.55	N
ATOM	3225	CA	HIS	A	230	-2.633	83.272	25.840	1.00	54.64	C
ATOM	3227	CB	HIS	A	230	-3.180	82.560	27.127	1.00	53.08	C
ATOM	3230	CG	HIS	A	230	-4.605	82.873	27.527	1.00	56.08	C
ATOM	3231	ND1	HIS	A	230	-4.979	83.014	28.852	1.00	56.51	N
ATOM	3233	CE1	HIS	A	230	-6.280	83.228	28.922	1.00	54.04	C
ATOM	3235	NE2	HIS	A	230	-6.774	83.200	27.697	1.00	54.50	N
ATOM	3237	CD2	HIS	A	230	-5.754	82.955	26.808	1.00	58.43	C
ATOM	3239	C	HIS	A	230	-3.656	83.596	24.770	1.00	56.27	C
ATOM	3240	O	HIS	A	230	-3.878	82.782	23.903	1.00	56.85	O
ATOM	3241	N	ASN	A	231	-4.240	84.792	24.794	1.00	56.80	N
ATOM	3243	CA	ASN	A	231	-5.050	85.259	23.665	1.00	55.30	C
ATOM	3245	CB	ASN	A	231	-5.898	86.490	24.040	1.00	54.87	C
ATOM	3248	CG	ASN	A	231	-7.193	86.142	24.816	1.00	56.08	C
ATOM	3249	OD1	ASN	A	231	-7.606	84.972	24.967	1.00	46.40	O
ATOM	3250	ND2	ASN	A	231	-7.841	87.195	25.319	1.00	55.22	N
ATOM	3253	C	ASN	A	231	-4.150	85.610	22.470	1.00	53.19	C
ATOM	3254	O	ASN	A	231	-4.502	85.369	21.323	1.00	51.96	O
ATOM	3255	N	LYS	A	232	-2.982	86.175	22.747	1.00	53.09	N
ATOM	3257	CA	LYS	A	232	-2.043	86.535	21.689	1.00	53.35	C
ATOM	3259	CB	LYS	A	232	-1.002	87.519	22.210	1.00	55.54	C
ATOM	3262	CG	LYS	A	232	-0.968	88.848	21.478	1.00	61.56	C
ATOM	3265	CD	LYS	A	232	-0.023	89.862	22.174	1.00	68.68	C
ATOM	3268	CE	LYS	A	232	-0.516	90.310	23.581	1.00	70.50	C
ATOM	3271	NZ	LYS	A	232	0.601	90.842	24.442	1.00	72.70	N
ATOM	3275	C	LYS	A	232	-1.376	85.264	21.147	1.00	52.07	C
ATOM	3276	O	LYS	A	232	-1.106	85.155	19.949	1.00	51.02	O
ATOM	3277	N	LEU	A	233	-1.138	84.300	22.035	1.00	47.60	N
ATOM	3279	CA	LEU	A	233	-0.608	83.000	21.636	1.00	45.83	C
ATOM	3281	CB	LEU	A	233	-0.175	82.134	22.856	1.00	41.69	C
ATOM	3284	CG	LEU	A	233	0.983	82.727	23.667	1.00	43.48	C
ATOM	3286	CD1	LEU	A	233	1.300	81.921	24.893	1.00	44.31	C
ATOM	3290	CD2	LEU	A	233	2.231	82.896	22.806	1.00	45.55	C
ATOM	3294	C	LEU	A	233	-1.629	82.273	20.795	1.00	44.64	C
ATOM	3295	O	LEU	A	233	-1.272	81.673	19.795	1.00	45.11	O
ATOM	3296	N	LEU	A	234	-2.901	82.351	21.185	1.00	46.27	N
ATOM	3298	CA	LEU	A	234	-3.967	81.600	20.496	1.00	45.84	C
ATOM	3300	CB	LEU	A	234	-5.268	81.555	21.324	1.00	43.46	C
ATOM	3303	CG	LEU	A	234	-5.315	80.479	22.421	1.00	42.93	C
ATOM	3305	CD1	LEU	A	234	-6.603	80.598	23.210	1.00	42.67	C
ATOM	3309	CD2	LEU	A	234	-5.142	79.074	21.885	1.00	43.52	C
ATOM	3313	C	LEU	A	234	-4.252	82.172	19.126	1.00	42.32	C
ATOM	3314	O	LEU	A	234	-4.659	81.447	18.223	1.00	43.50	O
ATOM	3315	N	LYS	A	235	-4.033	83.473	18.999	1.00	43.92	N
ATOM	3317	CA	LYS	A	235	-4.330	84.205	17.789	1.00	48.59	C
ATOM	3319	CB	LYS	A	235	-4.412	85.706	18.107	1.00	51.39	C
ATOM	3322	CG	LYS	A	235	-4.705	86.622	16.927	1.00	59.27	C
ATOM	3325	CD	LYS	A	235	-4.754	88.104	17.345	1.00	66.01	C
ATOM	3328	CE	LYS	A	235	-6.163	88.549	17.807	1.00	72.32	C
ATOM	3331	NZ	LYS	A	235	-6.355	88.430	19.302	1.00	75.88	N
ATOM	3335	C	LYS	A	235	-3.232	83.885	16.788	1.00	48.11	C
ATOM	3336	O	LYS	A	235	-3.507	83.632	15.621	1.00	49.77	O
ATOM	3337	N	ASN	A	236	-1.990	83.851	17.277	1.00	50.14	N
ATOM	3339	CA	ASN	A	236	-0.798	83.579	16.461	1.00	46.04	C
ATOM	3341	CB	ASN	A	236	0.471	83.872	17.266	1.00	48.35	C
ATOM	3344	CG	ASN	A	236	0.767	85.362	17.383	1.00	48.94	C
ATOM	3345	OD1	ASN	A	236	1.597	85.788	18.205	1.00	45.95	O
ATOM	3346	ND2	ASN	A	236	0.094	86.161	16.562	1.00	46.81	N
ATOM	3349	C	ASN	A	236	-0.747	82.150	15.960	1.00	41.46	C
ATOM	3350	O	ASN	A	236	-0.410	81.885	14.811	1.00	41.84	O
ATOM	3351	N	VAL	A	237	-1.085	81.223	16.826	1.00	38.83	N
ATOM	3353	CA	VAL	A	237	-1.133	79.843	16.426	1.00	40.75	C
ATOM	3355	CB	VAL	A	237	-1.400	78.933	17.620	1.00	40.19	C
ATOM	3357	CG1	VAL	A	237	-1.768	77.524	17.180	1.00	41.79	C
ATOM	3361	CG2	VAL	A	237	-0.172	78.892	18.505	1.00	42.04	C
ATOM	3365	C	VAL	A	237	-2.199	79.690	15.350	1.00	46.92	C
ATOM	3366	O	VAL	A	237	-1.983	78.983	14.356	1.00	51.43	O
ATOM	3367	N	ALA	A	238	-3.342	80.356	15.518	1.00	49.30	N
ATOM	3369	CA	ALA	A	238	-4.458	80.124	14.599	1.00	47.64	C
ATOM	3371	CB	ALA	A	238	-5.750	80.633	15.163	1.00	48.80	C
ATOM	3375	C	ALA	A	238	-4.148	80.761	13.256	1.00	42.47	C
ATOM	3376	O	ALA	A	238	-4.586	80.264	12.233	1.00	43.29	O
ATOM	3377	N	PHE	A	239	-3.368	81.836	13.267	1.00	38.51	N
ATOM	3379	CA	PHE	A	239	-2.882	82.452	12.034	1.00	40.83	C

321/514

Figure 5

ATOM	3381	CB	PHE	A	239	-2.033	83.677	12.347	1.00	39.27	C
ATOM	3384	CG	PHE	A	239	-1.491	84.363	11.133	1.00	43.25	C
ATOM	3385	CD1	PHE	A	239	-0.413	83.834	10.432	1.00	43.21	C
ATOM	3387	CE1	PHE	A	239	0.100	84.495	9.303	1.00	47.45	C
ATOM	3389	CZ	PHE	A	239	-0.478	85.687	8.861	1.00	46.14	C
ATOM	3391	CE2	PHE	A	239	-1.558	86.216	9.552	1.00	46.91	C
ATOM	3393	CD2	PHE	A	239	-2.055	85.559	10.690	1.00	44.68	C
ATOM	3395	C	PHE	A	239	-2.031	81.462	11.272	1.00	43.35	C
ATOM	3396	O	PHE	A	239	-2.202	81.281	10.077	1.00	46.74	O
ATOM	3397	N	MET	A	240	-1.102	80.843	11.992	1.00	46.36	N
ATOM	3399	CA	MET	A	240	-0.192	79.877	11.426	1.00	46.87	C
ATOM	3401	CB	MET	A	240	0.863	79.456	12.459	1.00	47.39	C
ATOM	3404	CG	MET	A	240	2.152	80.263	12.401	1.00	48.81	C
ATOM	3407	SD	MET	A	240	2.981	80.487	14.005	1.00	50.96	S
ATOM	3408	CE	MET	A	240	2.853	78.881	14.700	1.00	55.49	C
ATOM	3412	C	MET	A	240	-0.978	78.665	10.949	1.00	47.03	C
ATOM	3413	O	MET	A	240	-0.726	78.162	9.870	1.00	45.17	O
ATOM	3414	N	LYS	A	241	-1.934	78.201	11.743	1.00	48.17	N
ATOM	3416	CA	LYS	A	241	-2.758	77.058	11.346	1.00	49.86	C
ATOM	3418	CB	LYS	A	241	-3.753	76.705	12.448	1.00	49.36	C
ATOM	3421	CG	LYS	A	241	-3.159	75.947	13.621	1.00	50.82	C
ATOM	3424	CD	LYS	A	241	-4.106	75.945	14.822	1.00	53.94	C
ATOM	3427	CE	LYS	A	241	-4.403	74.555	15.339	1.00	54.13	C
ATOM	3430	NZ	LYS	A	241	-5.170	73.722	14.334	1.00	55.90	N
ATOM	3434	C	LYS	A	241	-3.496	77.322	10.010	1.00	51.85	C
ATOM	3435	O	LYS	A	241	-3.606	76.428	9.185	1.00	53.51	O
ATOM	3436	N	SER	A	242	-3.969	78.549	9.794	1.00	51.73	N
ATOM	3438	CA	SER	A	242	-4.656	78.915	8.557	1.00	52.02	C
ATOM	3440	CB	SER	A	242	-5.192	80.343	8.622	1.00	50.89	C
ATOM	3443	OG	SER	A	242	-6.501	80.311	9.095	1.00	54.27	O
ATOM	3445	C	SER	A	242	-3.744	78.872	7.371	1.00	51.51	C
ATOM	3446	O	SER	A	242	-4.130	78.413	6.301	1.00	51.97	O
ATOM	3447	N	TYR	A	243	-2.560	79.442	7.560	1.00	52.12	N
ATOM	3449	CA	TYR	A	243	-1.548	79.541	6.525	1.00	50.57	C
ATOM	3451	CB	TYR	A	243	-0.318	80.254	7.081	1.00	51.77	C
ATOM	3454	CG	TYR	A	243	0.826	80.234	6.127	1.00	56.12	C
ATOM	3455	CD1	TYR	A	243	0.956	81.217	5.162	1.00	61.57	C
ATOM	3457	CE1	TYR	A	243	1.994	81.191	4.258	1.00	64.35	C
ATOM	3459	CZ	TYR	A	243	2.912	80.160	4.310	1.00	65.98	C
ATOM	3460	OH	TYR	A	243	3.955	80.133	3.404	1.00	71.78	O
ATOM	3462	CE2	TYR	A	243	2.790	79.159	5.261	1.00	61.72	C
ATOM	3464	CD2	TYR	A	243	1.755	79.203	6.154	1.00	58.09	C
ATOM	3466	C	TYR	A	243	-1.169	78.150	6.058	1.00	48.84	C
ATOM	3467	O	TYR	A	243	-1.086	77.870	4.879	1.00	50.21	O
ATOM	3468	N	ILE	A	244	-0.945	77.272	7.014	1.00	48.82	N
ATOM	3470	CA	ILE	A	244	-0.622	75.898	6.725	1.00	48.19	C
ATOM	3472	CB	ILE	A	244	-0.301	75.146	8.045	1.00	47.73	C
ATOM	3474	CG1	ILE	A	244	1.052	75.626	8.580	1.00	46.84	C
ATOM	3477	CD1	ILE	A	244	1.159	75.625	10.073	1.00	46.59	C
ATOM	3481	CG2	ILE	A	244	-0.300	73.593	7.862	1.00	44.68	C
ATOM	3485	C	ILE	A	244	-1.764	75.247	5.989	1.00	48.17	C
ATOM	3486	O	ILE	A	244	-1.537	74.458	5.100	1.00	55.33	O
ATOM	3487	N	LEU	A	245	-2.986	75.568	6.372	1.00	49.93	N
ATOM	3489	CA	LEU	A	245	-4.171	74.979	5.758	1.00	49.94	C
ATOM	3491	CB	LEU	A	245	-5.440	75.523	6.418	1.00	48.78	C
ATOM	3494	CG	LEU	A	245	-6.706	74.657	6.492	1.00	53.41	C
ATOM	3496	CD1	LEU	A	245	-7.850	75.328	5.740	1.00	54.25	C
ATOM	3500	CD2	LEU	A	245	-6.523	73.195	6.014	1.00	52.87	C
ATOM	3504	C	LEU	A	245	-4.220	75.269	4.262	1.00	51.59	C
ATOM	3505	O	LEU	A	245	-4.519	74.382	3.474	1.00	51.28	O
ATOM	3506	N	GLU	A	246	-3.917	76.505	3.870	1.00	52.44	N
ATOM	3508	CA	GLU	A	246	-3.987	76.874	2.469	1.00	56.00	C
ATOM	3510	CB	GLU	A	246	-4.075	78.402	2.289	1.00	57.06	C
ATOM	3513	CG	GLU	A	246	-2.776	79.186	2.283	1.00	61.11	C
ATOM	3516	CD	GLU	A	246	-2.991	80.698	2.471	1.00	66.31	C
ATOM	3517	OE1	GLU	A	246	-3.758	81.115	3.369	1.00	68.79	O
ATOM	3518	OE2	GLU	A	246	-2.371	81.490	1.730	1.00	70.62	O
ATOM	3519	C	GLU	A	246	-2.821	76.218	1.729	1.00	57.66	C
ATOM	3520	O	GLU	A	246	-2.864	75.997	0.524	1.00	61.85	O
ATOM	3521	N	LYS	A	247	-1.791	75.869	2.478	1.00	58.99	N
ATOM	3523	CA	LYS	A	247	-0.685	75.097	1.941	1.00	56.02	C
ATOM	3525	CB	LYS	A	247	0.511	75.163	2.883	1.00	56.27	C
ATOM	3528	CG	LYS	A	247	1.720	75.782	2.241	1.00	58.18	C
ATOM	3531	CD	LYS	A	247	1.497	77.245	1.959	1.00	58.98	C
ATOM	3534	CE	LYS	A	247	2.790	77.951	1.584	1.00	58.06	C
ATOM	3537	NZ	LYS	A	247	2.948	78.155	0.127	1.00	58.10	N

322/514

Figure 5

ATOM	3541	C	LYS	A	247	-1.052	73.646	1.667	1.00	53.51	C
ATOM	3542	O	LYS	A	247	-0.640	73.109	0.642	1.00	55.97	O
ATOM	3543	N	VAL	A	248	-1.815	73.012	2.561	1.00	50.22	N
ATOM	3545	CA	VAL	A	248	-2.176	71.607	2.391	1.00	51.81	C
ATOM	3547	CB	VAL	A	248	-2.624	70.907	3.716	1.00	52.96	C
ATOM	3549	CG1	VAL	A	248	-1.950	71.490	4.924	1.00	52.69	C
ATOM	3553	CG2	VAL	A	248	-4.143	70.939	3.901	1.00	56.45	C
ATOM	3557	C	VAL	A	248	-3.278	71.467	1.333	1.00	56.28	C
ATOM	3558	O	VAL	A	248	-3.585	70.360	0.868	1.00	52.54	O
ATOM	3559	N	LYS	A	249	-3.891	72.596	0.986	1.00	58.87	N
ATOM	3561	CA	LYS	A	249	-4.911	72.610	-0.037	1.00	61.75	C
ATOM	3563	CB	LYS	A	249	-5.809	73.850	0.090	1.00	63.22	C
ATOM	3566	CG	LYS	A	249	-6.979	73.645	1.084	1.00	64.58	C
ATOM	3569	CD	LYS	A	249	-8.028	74.776	1.008	1.00	65.22	C
ATOM	3572	CE	LYS	A	249	-8.996	74.788	2.217	1.00	63.09	C
ATOM	3575	NZ	LYS	A	249	-9.215	73.439	2.821	1.00	57.26	N
ATOM	3579	C	LYS	A	249	-4.199	72.528	-1.377	1.00	60.57	C
ATOM	3580	O	LYS	A	249	-4.456	71.599	-2.141	1.00	59.79	O
ATOM	3581	N	GLU	A	250	-3.275	73.463	-1.624	1.00	59.92	N
ATOM	3583	CA	GLU	A	250	-2.381	73.408	-2.791	1.00	61.16	C
ATOM	3585	CB	GLU	A	250	-1.232	74.412	-2.688	1.00	62.86	C
ATOM	3588	CG	GLU	A	250	-1.626	75.881	-2.640	1.00	67.59	C
ATOM	3591	CD	GLU	A	250	-0.447	76.810	-2.335	1.00	71.94	C
ATOM	3592	OE1	GLU	A	250	-0.490	77.990	-2.743	1.00	73.52	O
ATOM	3593	OE2	GLU	A	250	0.534	76.377	-1.686	1.00	77.91	O
ATOM	3594	C	GLU	A	250	-1.755	72.029	-2.956	1.00	61.04	C
ATOM	3595	O	GLU	A	250	-1.480	71.609	-4.074	1.00	65.27	O
ATOM	3596	N	HIS	A	251	-1.513	71.341	-1.843	1.00	60.36	N
ATOM	3598	CA	HIS	A	251	-0.931	70.001	-1.868	1.00	58.63	C
ATOM	3600	CB	HIS	A	251	-0.281	69.650	-0.517	1.00	55.86	C
ATOM	3603	CG	HIS	A	251	1.114	70.169	-0.382	1.00	51.67	C
ATOM	3604	ND1	HIS	A	251	1.427	71.500	-0.555	1.00	52.27	N
ATOM	3606	CE1	HIS	A	251	2.728	71.667	-0.407	1.00	51.11	C
ATOM	3608	NE2	HIS	A	251	3.271	70.490	-0.148	1.00	47.36	N
ATOM	3610	CD2	HIS	A	251	2.284	69.535	-0.136	1.00	47.73	C
ATOM	3612	C	HIS	A	251	-1.973	68.965	-2.258	1.00	60.22	C
ATOM	3613	O	HIS	A	251	-1.722	68.153	-3.130	1.00	62.92	O
ATOM	3614	N	GLN	A	252	-3.143	69.006	-1.629	1.00	62.22	N
ATOM	3616	CA	GLN	A	252	-4.233	68.077	-1.950	1.00	61.02	C
ATOM	3618	CB	GLN	A	252	-5.472	68.399	-1.104	1.00	59.10	C
ATOM	3621	CG	GLN	A	252	-5.469	67.681	0.235	1.00	59.83	C
ATOM	3624	CD	GLN	A	252	-6.558	68.135	1.193	1.00	58.75	C
ATOM	3625	OE1	GLN	A	252	-7.075	67.323	1.965	1.00	55.04	O
ATOM	3626	NE2	GLN	A	252	-6.885	69.426	1.164	1.00	58.72	N
ATOM	3629	C	GLN	A	252	-4.576	68.121	-3.439	1.00	61.34	C
ATOM	3630	O	GLN	A	252	-5.036	67.143	-4.011	1.00	57.70	O
ATOM	3631	N	GLU	A	253	-4.318	69.263	-4.057	1.00	65.32	N
ATOM	3633	CA	GLU	A	253	-4.649	69.493	-5.445	1.00	71.50	C
ATOM	3635	CB	GLU	A	253	-4.718	71.006	-5.693	1.00	73.40	C
ATOM	3638	CG	GLU	A	253	-5.157	71.409	-7.089	1.00	78.32	C
ATOM	3641	CD	GLU	A	253	-3.994	71.436	-8.064	1.00	82.83	C
ATOM	3642	OE1	GLU	A	253	-4.089	70.790	-9.139	1.00	86.38	O
ATOM	3643	OE2	GLU	A	253	-2.978	72.092	-7.740	1.00	84.17	O
ATOM	3644	C	GLU	A	253	-3.614	68.822	-6.347	1.00	74.24	C
ATOM	3645	O	GLU	A	253	-3.958	67.984	-7.185	1.00	78.02	O
ATOM	3646	N	SER	A	254	-2.343	69.171	-6.152	1.00	76.13	N
ATOM	3648	CA	SER	A	254	-1.256	68.733	-7.041	1.00	76.24	C
ATOM	3650	CB	SER	A	254	-0.202	69.837	-7.161	1.00	75.95	C
ATOM	3653	OG	SER	A	254	0.651	69.825	-6.030	1.00	75.05	O
ATOM	3655	C	SER	A	254	-0.568	67.461	-6.565	1.00	73.53	C
ATOM	3656	O	SER	A	254	0.496	67.107	-7.043	1.00	72.87	O
ATOM	3657	N	MET	A	255	-1.185	66.767	-5.631	1.00	72.79	N
ATOM	3659	CA	MET	A	255	-0.501	65.706	-4.926	1.00	72.92	C
ATOM	3661	CB	MET	A	255	-1.278	65.339	-3.662	1.00	75.31	C
ATOM	3664	CG	MET	A	255	-0.430	65.021	-2.462	1.00	77.46	C
ATOM	3667	SD	MET	A	255	-0.903	63.416	-1.805	1.00	85.77	S
ATOM	3668	CE	MET	A	255	-2.808	63.633	-1.530	1.00	84.85	C
ATOM	3672	C	MET	A	255	-0.397	64.489	-5.814	1.00	70.64	C
ATOM	3673	O	MET	A	255	-1.389	64.020	-6.344	1.00	69.10	O
ATOM	3674	N	ASP	A	256	0.815	63.978	-5.959	1.00	70.94	N
ATOM	3676	CA	ASP	A	256	1.045	62.719	-6.638	1.00	70.30	C
ATOM	3678	CB	ASP	A	256	2.241	62.862	-7.580	1.00	70.60	C
ATOM	3681	CG	ASP	A	256	2.568	61.581	-8.339	1.00	69.39	C
ATOM	3682	OD1	ASP	A	256	1.807	60.580	-8.243	1.00	61.05	O
ATOM	3683	OD2	ASP	A	256	3.588	61.515	-9.073	1.00	67.87	O
ATOM	3684	C	ASP	A	256	1.310	61.642	-5.601	1.00	69.99	C

323/514

Figure 5

ATOM	3685	O	ASP	A	256	2.367	61.620	-4.983	1.00	69.26	O
ATOM	3686	N	MET	A	257	0.340	60.753	-5.421	1.00	72.26	N
ATOM	3688	CA	MET	A	257	0.512	59.546	-4.605	1.00	74.43	C
ATOM	3690	CB	MET	A	257	-0.825	58.818	-4.431	1.00	77.61	C
ATOM	3693	CG	MET	A	257	-2.030	59.715	-4.032	1.00	80.92	C
ATOM	3696	SD	MET	A	257	-2.225	59.934	-2.238	1.00	84.86	S
ATOM	3697	CE	MET	A	257	-2.604	58.182	-1.700	1.00	82.19	C
ATOM	3701	C	MET	A	257	1.531	58.622	-5.289	1.00	74.66	C
ATOM	3702	O	MET	A	257	1.711	58.691	-6.507	1.00	78.70	O
ATOM	3703	N	ASN	A	258	2.187	57.754	-4.517	1.00	72.39	N
ATOM	3705	CA	ASN	A	258	3.394	57.012	-4.969	1.00	70.60	C
ATOM	3707	CB	ASN	A	258	3.190	56.183	-6.261	1.00	72.71	C
ATOM	3710	CG	ASN	A	258	1.813	55.568	-6.376	1.00	73.74	C
ATOM	3711	OD1	ASN	A	258	1.531	54.524	-5.779	1.00	73.92	O
ATOM	3712	ND2	ASN	A	258	0.952	56.202	-7.174	1.00	71.60	N
ATOM	3715	C	ASN	A	258	4.624	57.889	-5.209	1.00	66.47	C
ATOM	3716	O	ASN	A	258	5.659	57.372	-5.626	1.00	62.36	O
ATOM	3717	N	ASN	A	259	4.503	59.197	-4.966	1.00	63.68	N
ATOM	3719	CA	ASN	A	259	5.598	60.148	-5.175	1.00	62.22	C
ATOM	3721	CB	ASN	A	259	5.586	60.626	-6.626	1.00	65.76	C
ATOM	3724	CG	ASN	A	259	6.264	59.662	-7.547	1.00	64.03	C
ATOM	3725	OD1	ASN	A	259	7.362	59.194	-7.255	1.00	62.09	O
ATOM	3726	ND2	ASN	A	259	5.617	59.344	-8.663	1.00	64.02	N
ATOM	3729	C	ASN	A	259	5.575	61.364	-4.237	1.00	59.52	C
ATOM	3730	O	ASN	A	259	5.686	62.513	-4.680	1.00	52.55	O
ATOM	3731	N	PRO	A	260	5.478	61.100	-2.938	1.00	59.32	N
ATOM	3732	CA	PRO	A	260	5.464	62.165	-1.944	1.00	58.61	C
ATOM	3734	CB	PRO	A	260	5.151	61.421	-0.645	1.00	59.31	C
ATOM	3737	CG	PRO	A	260	5.665	60.045	-0.863	1.00	60.10	C
ATOM	3740	CD	PRO	A	260	5.425	59.768	-2.305	1.00	60.45	C
ATOM	3743	C	PRO	A	260	6.820	62.850	-1.865	1.00	57.41	C
ATOM	3744	O	PRO	A	260	7.855	62.203	-1.987	1.00	56.10	O
ATOM	3745	N	GLN	A	261	6.784	64.160	-1.664	1.00	56.85	N
ATOM	3747	CA	GLN	A	261	7.971	64.991	-1.663	1.00	57.72	C
ATOM	3749	CB	GLN	A	261	7.892	65.976	-2.828	1.00	58.58	C
ATOM	3752	CG	GLN	A	261	7.455	65.355	-4.159	1.00	61.87	C
ATOM	3755	CD	GLN	A	261	8.533	65.395	-5.209	1.00	62.74	C
ATOM	3756	OE1	GLN	A	261	9.532	64.677	-5.111	1.00	62.95	O
ATOM	3757	NE2	GLN	A	261	8.343	66.237	-6.219	1.00	64.98	N
ATOM	3760	C	GLN	A	261	8.197	65.758	-0.344	1.00	56.68	C
ATOM	3761	O	GLN	A	261	9.301	66.248	-0.112	1.00	57.10	O
ATOM	3762	N	ASP	A	262	7.172	65.896	0.502	1.00	52.62	N
ATOM	3764	CA	ASP	A	262	7.358	66.553	1.796	1.00	49.85	C
ATOM	3766	CB	ASP	A	262	7.243	68.089	1.677	1.00	48.27	C
ATOM	3769	CG	ASP	A	262	5.952	68.540	1.072	1.00	47.71	C
ATOM	3770	OD1	ASP	A	262	5.891	69.701	0.577	1.00	39.28	O
ATOM	3771	OD2	ASP	A	262	4.945	67.804	1.054	1.00	49.62	O
ATOM	3772	C	ASP	A	262	6.451	65.993	2.873	1.00	49.13	C
ATOM	3773	O	ASP	A	262	5.782	64.976	2.668	1.00	47.88	O
ATOM	3774	N	PHE	A	263	6.480	66.637	4.037	1.00	47.02	N
ATOM	3776	CA	PHE	A	263	5.750	66.185	5.211	1.00	43.00	C
ATOM	3778	CB	PHE	A	263	6.016	67.129	6.361	1.00	43.77	C
ATOM	3781	CG	PHE	A	263	5.528	66.631	7.656	1.00	46.20	C
ATOM	3782	CD1	PHE	A	263	6.225	65.647	8.328	1.00	48.61	C
ATOM	3784	CE1	PHE	A	263	5.778	65.169	9.554	1.00	48.10	C
ATOM	3786	CZ	PHE	A	263	4.627	65.683	10.110	1.00	48.92	C
ATOM	3788	CE2	PHE	A	263	3.918	66.678	9.448	1.00	47.50	C
ATOM	3790	CD2	PHE	A	263	4.369	67.148	8.223	1.00	48.33	C
ATOM	3792	C	PHE	A	263	4.270	66.155	4.935	1.00	42.34	C
ATOM	3793	O	PHE	A	263	3.608	65.141	5.177	1.00	41.90	O
ATOM	3794	N	ILE	A	264	3.748	67.268	4.427	1.00	39.65	N
ATOM	3796	CA	ILE	A	264	2.329	67.335	4.089	1.00	41.65	C
ATOM	3798	CB	ILE	A	264	1.987	68.708	3.449	1.00	40.36	C
ATOM	3800	CG1	ILE	A	264	1.931	69.789	4.521	1.00	36.77	C
ATOM	3803	CD1	ILE	A	264	1.892	71.207	3.949	1.00	34.91	C
ATOM	3807	CG2	ILE	A	264	0.635	68.676	2.701	1.00	41.67	C
ATOM	3811	C	ILE	A	264	1.898	66.132	3.185	1.00	44.29	C
ATOM	3812	O	ILE	A	264	0.968	65.416	3.546	1.00	41.67	O
ATOM	3813	N	ASP	A	265	2.586	65.916	2.050	1.00	43.52	N
ATOM	3815	CA	ASP	A	265	2.300	64.801	1.136	1.00	43.71	C
ATOM	3817	CB	ASP	A	265	3.398	64.596	0.055	1.00	46.04	C
ATOM	3820	CG	ASP	A	265	3.342	65.603	-1.104	1.00	46.70	C
ATOM	3821	OD1	ASP	A	265	2.337	66.325	-1.268	1.00	55.07	O
ATOM	3822	OD2	ASP	A	265	4.288	65.733	-1.923	1.00	49.15	O
ATOM	3823	C	ASP	A	265	2.189	63.506	1.919	1.00	43.17	C
ATOM	3824	O	ASP	A	265	1.190	62.831	1.818	1.00	51.04	O

324/514

Figure 5

ATOM	3825	N	CYS A 266	3.203	63.155	2.705	1.00	45.23	N
ATOM	3827	CA	CYS A 266	3.200	61.870	3.437	1.00	46.23	C
ATOM	3829	CB	CYS A 266	4.515	61.651	4.177	1.00	44.31	C
ATOM	3832	SG	CYS A 266	5.964	61.788	3.142	1.00	50.87	S
ATOM	3833	C	CYS A 266	2.064	61.755	4.456	1.00	44.09	C
ATOM	3834	O	CYS A 266	1.621	60.674	4.774	1.00	43.60	O
ATOM	3835	N	PHE A 267	1.643	62.880	5.002	1.00	46.05	N
ATOM	3837	CA	PHE A 267	0.567	62.890	5.960	1.00	48.61	C
ATOM	3839	CB	PHE A 267	0.557	64.219	6.734	1.00	48.87	C
ATOM	3842	CG	PHE A 267	-0.221	64.175	8.036	1.00	49.96	C
ATOM	3843	CD1	PHE A 267	0.437	64.182	9.259	1.00	51.26	C
ATOM	3845	CE1	PHE A 267	-0.270	64.165	10.441	1.00	50.33	C
ATOM	3847	CZ	PHE A 267	-1.635	64.138	10.416	1.00	52.31	C
ATOM	3849	CE2	PHE A 267	-2.308	64.132	9.205	1.00	52.02	C
ATOM	3851	CD2	PHE A 267	-1.607	64.160	8.032	1.00	49.61	C
ATOM	3853	C	PHE A 267	-0.734	62.662	5.186	1.00	48.39	C
ATOM	3854	O	PHE A 267	-1.564	61.843	5.585	1.00	46.99	O
ATOM	3855	N	LEU A 268	-0.891	63.367	4.069	1.00	47.84	N
ATOM	3857	CA	LEU A 268	-2.106	63.275	3.259	1.00	49.38	C
ATOM	3859	CB	LEU A 268	-2.033	64.209	2.041	1.00	45.56	C
ATOM	3862	CG	LEU A 268	-2.891	65.488	2.006	1.00	47.97	C
ATOM	3864	CD1	LEU A 268	-3.402	65.963	3.350	1.00	52.53	C
ATOM	3868	CD2	LEU A 268	-2.134	66.609	1.342	1.00	47.02	C
ATOM	3872	C	LEU A 268	-2.325	61.829	2.830	1.00	52.08	C
ATOM	3873	O	LEU A 268	-3.439	61.302	2.898	1.00	53.44	O
ATOM	3874	N	MET A 269	-1.243	61.172	2.441	1.00	55.67	N
ATOM	3876	CA	MET A 269	-1.336	59.817	1.952	1.00	60.40	C
ATOM	3878	CB	MET A 269	-0.245	59.545	0.919	1.00	64.46	C
ATOM	3881	CG	MET A 269	1.153	59.419	1.447	1.00	70.20	C
ATOM	3884	SD	MET A 269	2.194	58.561	0.228	1.00	81.82	S
ATOM	3885	CE	MET A 269	1.912	59.560	-1.275	1.00	79.83	C
ATOM	3889	C	MET A 269	-1.343	58.790	3.074	1.00	56.12	C
ATOM	3890	O	MET A 269	-1.759	57.655	2.871	1.00	59.69	O
ATOM	3891	N	LYS A 270	-0.898	59.185	4.253	1.00	55.16	N
ATOM	3893	CA	LYS A 270	-1.143	58.382	5.441	1.00	56.18	C
ATOM	3895	CB	LYS A 270	-0.327	58.893	6.628	1.00	54.94	C
ATOM	3898	CG	LYS A 270	-0.560	58.179	7.962	1.00	53.34	C
ATOM	3901	CD	LYS A 270	-0.315	56.686	7.896	1.00	54.42	C
ATOM	3904	CE	LYS A 270	-0.414	56.066	9.287	1.00	55.33	C
ATOM	3907	NZ	LYS A 270	0.384	54.841	9.379	1.00	56.41	N
ATOM	3911	C	LYS A 270	-2.645	58.404	5.748	1.00	58.13	C
ATOM	3912	O	LYS A 270	-3.178	57.422	6.233	1.00	57.10	O
ATOM	3913	N	MET A 271	-3.329	59.507	5.437	1.00	61.89	N
ATOM	3915	CA	MET A 271	-4.764	59.606	5.689	1.00	65.56	C
ATOM	3917	CB	MET A 271	-5.269	61.028	5.491	1.00	64.81	C
ATOM	3920	CG	MET A 271	-4.523	62.035	6.334	1.00	64.90	C
ATOM	3923	SD	MET A 271	-5.512	63.386	6.897	1.00	64.75	S
ATOM	3924	CE	MET A 271	-6.023	64.107	5.349	1.00	60.52	C
ATOM	3928	C	MET A 271	-5.532	58.658	4.796	1.00	70.40	C
ATOM	3929	O	MET A 271	-6.546	58.104	5.217	1.00	72.98	O
ATOM	3930	N	GLU A 272	-5.034	58.460	3.576	1.00	75.30	N
ATOM	3932	CA	GLU A 272	-5.635	57.516	2.642	1.00	79.34	C
ATOM	3934	CB	GLU A 272	-5.059	57.710	1.239	1.00	82.63	C
ATOM	3937	CG	GLU A 272	-6.006	57.288	0.121	1.00	85.33	C
ATOM	3940	CD	GLU A 272	-6.800	58.457	-0.444	1.00	87.12	C
ATOM	3941	OE1	GLU A 272	-7.605	59.060	0.305	1.00	86.17	O
ATOM	3942	OE2	GLU A 272	-6.614	58.780	-1.637	1.00	88.86	O
ATOM	3943	C	GLU A 272	-5.464	56.057	3.085	1.00	80.00	C
ATOM	3944	O	GLU A 272	-6.394	55.272	2.986	1.00	81.67	O
ATOM	3945	N	LYS A 273	-4.292	55.691	3.587	1.00	81.63	N
ATOM	3947	CA	LYS A 273	-4.083	54.323	4.063	1.00	84.64	C
ATOM	3949	CB	LYS A 273	-2.581	54.018	4.216	1.00	86.22	C
ATOM	3952	CG	LYS A 273	-1.839	53.924	2.852	1.00	90.66	C
ATOM	3955	CD	LYS A 273	-0.300	54.098	2.952	1.00	94.00	C
ATOM	3958	CE	LYS A 273	0.437	52.754	3.103	1.00	94.28	C
ATOM	3961	NZ	LYS A 273	0.158	52.102	4.422	1.00	95.57	N
ATOM	3965	C	LYS A 273	-4.848	54.069	5.368	1.00	85.52	C
ATOM	3966	O	LYS A 273	-4.909	52.942	5.846	1.00	85.12	O
ATOM	3967	N	GLU A 274	-5.434	55.124	5.933	1.00	87.84	N
ATOM	3969	CA	GLU A 274	-6.228	55.034	7.153	1.00	91.15	C
ATOM	3971	CB	GLU A 274	-5.670	55.995	8.203	1.00	91.31	C
ATOM	3974	CG	GLU A 274	-4.388	55.517	8.868	1.00	92.06	C
ATOM	3977	CD	GLU A 274	-4.618	54.844	10.209	1.00	92.75	C
ATOM	3978	OE1	GLU A 274	-5.480	55.311	10.986	1.00	92.91	O
ATOM	3979	OE2	GLU A 274	-3.921	53.846	10.487	1.00	94.12	O
ATOM	3980	C	GLU A 274	-7.701	55.361	6.931	1.00	93.99	C

325/514

Figure 5

ATOM	3981	O	GLU A 274	-8.520	55.128	7.821	1.00	95.67	O
ATOM	3982	N	LYS A 275	-8.045	55.876	5.749	1.00	97.48	N
ATOM	3984	CA	LYS A 275	-9.407	56.363	5.477	1.00	99.30	C
ATOM	3986	CB	LYS A 275	-9.541	56.929	4.045	1.00	99.38	C
ATOM	3989	CG	LYS A 275	-9.802	55.892	2.919	1.00	100.16	C
ATOM	3992	CD	LYS A 275	-10.784	56.407	1.833	1.00	100.38	C
ATOM	3995	CE	LYS A 275	-10.070	57.168	0.696	1.00	99.77	C
ATOM	3998	NZ	LYS A 275	-10.751	57.060	-0.630	1.00	96.83	N
ATOM	4002	C	LYS A 275	-10.482	55.301	5.734	1.00	100.02	C
ATOM	4003	O	LYS A 275	-11.649	55.639	5.937	1.00	100.57	O
ATOM	4004	N	HIS A 276	-10.092	54.026	5.717	1.00	99.95	N
ATOM	4006	CA	HIS A 276	-11.025	52.955	6.015	1.00	99.80	C
ATOM	4008	CB	HIS A 276	-10.597	51.635	5.369	1.00	101.63	C
ATOM	4011	CG	HIS A 276	-11.112	51.475	3.967	1.00	105.46	C
ATOM	4012	ND1	HIS A 276	-12.163	50.638	3.644	1.00	106.73	N
ATOM	4014	CE1	HIS A 276	-12.404	50.716	2.346	1.00	107.55	C
ATOM	4016	NE2	HIS A 276	-11.555	51.583	1.815	1.00	107.81	C
ATOM	4018	CD2	HIS A 276	-10.742	52.078	2.808	1.00	107.41	C
ATOM	4020	C	HIS A 276	-11.259	52.862	7.516	1.00	98.85	C
ATOM	4021	O	HIS A 276	-12.236	53.438	7.987	1.00	98.10	O
ATOM	4022	N	ASN A 277	-10.393	52.184	8.275	1.00	99.13	N
ATOM	4024	CA	ASN A 277	-10.599	52.121	9.739	1.00	100.08	C
ATOM	4026	CB	ASN A 277	-9.689	51.104	10.469	1.00	100.64	C
ATOM	4029	CG	ASN A 277	-8.254	51.110	9.968	1.00	101.67	C
ATOM	4030	OD1	ASN A 277	-7.965	50.592	8.893	1.00	100.42	O
ATOM	4031	ND2	ASN A 277	-7.348	51.683	10.757	1.00	102.60	N
ATOM	4034	C	ASN A 277	-10.510	53.533	10.345	1.00	99.48	C
ATOM	4035	O	ASN A 277	-9.425	54.044	10.644	1.00	97.70	O
ATOM	4036	N	GLN A 278	-11.689	54.131	10.537	1.00	98.37	N
ATOM	4038	CA	GLN A 278	-11.852	55.574	10.689	1.00	96.27	C
ATOM	4040	CB	GLN A 278	-12.869	56.068	9.642	1.00	97.68	C
ATOM	4043	CG	GLN A 278	-12.989	57.591	9.439	1.00	98.08	C
ATOM	4046	CD	GLN A 278	-11.878	58.187	8.590	1.00	99.23	C
ATOM	4047	OE1	GLN A 278	-11.328	57.531	7.708	1.00	98.25	O
ATOM	4048	NE2	GLN A 278	-11.554	59.442	8.854	1.00	101.33	N
ATOM	4051	C	GLN A 278	-12.287	56.043	12.085	1.00	94.50	C
ATOM	4052	O	GLN A 278	-13.097	56.965	12.185	1.00	93.82	O
ATOM	4053	N	PRO A 279	-11.774	55.446	13.167	1.00	92.31	N
ATOM	4054	CA	PRO A 279	-11.590	56.257	14.378	1.00	88.11	C
ATOM	4056	CB	PRO A 279	-11.089	55.252	15.440	1.00	90.15	C
ATOM	4059	CG	PRO A 279	-11.308	53.850	14.850	1.00	91.73	C
ATOM	4062	CD	PRO A 279	-11.378	54.032	13.364	1.00	92.73	C
ATOM	4065	C	PRO A 279	-10.559	57.342	13.976	1.00	83.50	C
ATOM	4066	O	PRO A 279	-10.969	58.485	13.803	1.00	80.58	O
ATOM	4067	N	SER A 280	-9.291	56.957	13.771	1.00	78.03	N
ATOM	4069	CA	SER A 280	-8.244	57.736	13.051	1.00	74.66	C
ATOM	4071	CB	SER A 280	-8.695	58.115	11.651	1.00	75.52	C
ATOM	4074	OG	SER A 280	-7.550	58.460	10.889	1.00	76.29	O
ATOM	4076	C	SER A 280	-7.597	58.987	13.676	1.00	70.18	C
ATOM	4077	O	SER A 280	-8.230	60.020	13.855	1.00	67.75	O
ATOM	4078	N	GLU A 281	-6.286	58.899	13.879	1.00	67.03	N
ATOM	4080	CA	GLU A 281	-5.479	59.936	14.531	1.00	61.09	C
ATOM	4082	CB	GLU A 281	-4.327	59.241	15.274	1.00	61.08	C
ATOM	4085	CG	GLU A 281	-4.287	59.374	16.796	1.00	62.72	C
ATOM	4088	CD	GLU A 281	-5.625	59.298	17.543	1.00	64.31	C
ATOM	4089	OE1	GLU A 281	-6.344	60.335	17.603	1.00	64.70	O
ATOM	4090	OE2	GLU A 281	-5.923	58.231	18.136	1.00	57.12	O
ATOM	4091	C	GLU A 281	-4.934	60.999	13.537	1.00	58.10	C
ATOM	4092	O	GLU A 281	-4.644	62.155	13.927	1.00	55.70	O
ATOM	4093	N	PHE A 282	-4.816	60.616	12.261	1.00	51.61	N
ATOM	4095	CA	PHE A 282	-4.368	61.527	11.211	1.00	49.30	C
ATOM	4097	CB	PHE A 282	-3.526	60.785	10.192	1.00	49.52	C
ATOM	4100	CG	PHE A 282	-2.345	60.148	10.799	1.00	51.00	C
ATOM	4101	CD1	PHE A 282	-2.480	58.946	11.476	1.00	51.75	C
ATOM	4103	CE1	PHE A 282	-1.398	58.358	12.087	1.00	55.89	C
ATOM	4105	CZ	PHE A 282	-0.159	58.999	12.048	1.00	53.72	C
ATOM	4107	CE2	PHE A 282	-0.033	60.223	11.395	1.00	50.75	C
ATOM	4109	CD2	PHE A 282	-1.116	60.791	10.790	1.00	49.66	C
ATOM	4111	C	PHE A 282	-5.543	62.169	10.529	1.00	47.44	C
ATOM	4112	O	PHE A 282	-6.362	61.489	9.953	1.00	53.30	O
ATOM	4113	N	THR A 283	-5.606	63.486	10.623	1.00	45.49	N
ATOM	4115	CA	THR A 283	-6.675	64.311	10.079	1.00	45.32	C
ATOM	4117	CB	THR A 283	-7.756	64.578	11.146	1.00	46.15	C
ATOM	4119	OG1	THR A 283	-7.227	65.446	12.165	1.00	44.74	O
ATOM	4121	CG2	THR A 283	-8.160	63.297	11.903	1.00	44.72	C
ATOM	4125	C	THR A 283	-6.066	65.657	9.680	1.00	47.50	C

326/514

Figure 5

ATOM	4126	O	THR	A	283	-4.886	65.921	9.956	1.00	50.63	O
ATOM	4127	N	ILE	A	284	-6.863	66.522	9.065	1.00	46.32	N
ATOM	4129	CA	ILE	A	284	-6.365	67.828	8.680	1.00	46.94	C
ATOM	4131	CB	ILE	A	284	-7.347	68.580	7.752	1.00	48.34	C
ATOM	4133	CG1	ILE	A	284	-7.650	67.789	6.468	1.00	50.76	C
ATOM	4136	CD1	ILE	A	284	-6.417	67.413	5.621	1.00	53.62	C
ATOM	4140	CG2	ILE	A	284	-6.778	69.927	7.374	1.00	51.69	C
ATOM	4144	C	ILE	A	284	-6.098	68.619	9.952	1.00	50.28	C
ATOM	4145	O	ILE	A	284	-5.105	69.309	10.029	1.00	49.78	O
ATOM	4146	N	GLU	A	285	-6.967	68.515	10.956	1.00	53.93	N
ATOM	4148	CA	GLU	A	285	-6.713	69.187	12.229	1.00	56.06	C
ATOM	4150	CB	GLU	A	285	-7.752	68.791	13.301	1.00	59.76	C
ATOM	4153	CG	GLU	A	285	-8.853	69.811	13.561	1.00	67.71	C
ATOM	4156	CD	GLU	A	285	-8.429	70.993	14.438	1.00	75.61	C
ATOM	4157	OE1	GLU	A	285	-7.905	70.762	15.559	1.00	77.36	O
ATOM	4158	OE2	GLU	A	285	-8.645	72.165	14.013	1.00	80.87	O
ATOM	4159	C	GLU	A	285	-5.293	68.823	12.720	1.00	54.91	C
ATOM	4160	O	GLU	A	285	-4.474	69.696	12.962	1.00	51.12	O
ATOM	4161	N	SER	A	286	-5.006	67.526	12.841	1.00	54.84	N
ATOM	4163	CA	SER	A	286	-3.767	67.055	13.485	1.00	52.23	C
ATOM	4165	CB	SER	A	286	-3.846	65.563	13.872	1.00	52.69	C
ATOM	4168	OG	SER	A	286	-4.087	64.708	12.774	1.00	51.94	O
ATOM	4170	C	SER	A	286	-2.500	67.320	12.677	1.00	51.76	C
ATOM	4171	O	SER	A	286	-1.408	67.365	13.238	1.00	49.06	O
ATOM	4172	N	LEU	A	287	-2.657	67.507	11.371	1.00	49.90	N
ATOM	4174	CA	LEU	A	287	-1.551	67.852	10.512	1.00	47.85	C
ATOM	4176	CB	LEU	A	287	-1.909	67.560	9.060	1.00	48.14	C
ATOM	4179	CG	LEU	A	287	-1.028	68.130	7.954	1.00	50.70	C
ATOM	4181	CD1	LEU	A	287	0.393	67.692	8.096	1.00	48.07	C
ATOM	4185	CD2	LEU	A	287	-1.575	67.709	6.595	1.00	53.36	C
ATOM	4189	C	LEU	A	287	-1.214	69.315	10.736	1.00	48.42	C
ATOM	4190	O	LEU	A	287	-0.051	69.665	10.844	1.00	52.77	O
ATOM	4191	N	GLU	A	288	-2.227	70.170	10.818	1.00	49.64	N
ATOM	4193	CA	GLU	A	288	-2.027	71.588	11.138	1.00	48.59	C
ATOM	4195	CB	GLU	A	288	-3.369	72.334	11.255	1.00	51.54	C
ATOM	4198	CG	GLU	A	288	-3.931	72.976	9.989	1.00	54.59	C
ATOM	4201	CD	GLU	A	288	-5.436	73.231	10.090	1.00	59.08	C
ATOM	4202	OE1	GLU	A	288	-5.898	73.816	11.093	1.00	60.72	O
ATOM	4203	OE2	GLU	A	288	-6.175	72.823	9.175	1.00	66.14	O
ATOM	4204	C	GLU	A	288	-1.302	71.716	12.471	1.00	46.65	C
ATOM	4205	O	GLU	A	288	-0.434	72.575	12.624	1.00	44.39	O
ATOM	4206	N	ASN	A	289	-1.692	70.863	13.424	1.00	42.83	N
ATOM	4208	CA	ASN	A	289	-1.199	70.901	14.794	1.00	42.88	C
ATOM	4210	CB	ASN	A	289	-2.045	70.003	15.736	1.00	46.25	C
ATOM	4213	CG	ASN	A	289	-3.445	70.582	16.071	1.00	47.88	C
ATOM	4214	OD1	ASN	A	289	-4.270	69.899	16.655	1.00	49.16	O
ATOM	4215	ND2	ASN	A	289	-3.701	71.820	15.692	1.00	53.97	N
ATOM	4218	C	ASN	A	289	0.233	70.408	14.847	1.00	43.15	C
ATOM	4219	O	ASN	A	289	1.070	70.966	15.551	1.00	44.21	O
ATOM	4220	N	THR	A	290	0.511	69.340	14.113	1.00	41.61	N
ATOM	4222	CA	THR	A	290	1.847	68.793	14.080	1.00	39.87	C
ATOM	4224	CB	THR	A	290	1.847	67.428	13.424	1.00	39.78	C
ATOM	4226	OG1	THR	A	290	1.144	66.500	14.259	1.00	40.52	O
ATOM	4228	CG2	THR	A	290	3.237	66.855	13.400	1.00	41.10	C
ATOM	4232	C	THR	A	290	2.763	69.759	13.350	1.00	40.05	C
ATOM	4233	O	THR	A	290	3.914	69.954	13.730	1.00	42.37	O
ATOM	4234	N	ALA	A	291	2.233	70.397	12.321	1.00	38.79	N
ATOM	4236	CA	ALA	A	291	2.987	71.395	11.595	1.00	35.99	C
ATOM	4238	CB	ALA	A	291	2.219	71.870	10.382	1.00	33.56	C
ATOM	4242	C	ALA	A	291	3.381	72.573	12.482	1.00	36.34	C
ATOM	4243	O	ALA	A	291	4.531	72.964	12.436	1.00	36.86	O
ATOM	4244	N	VAL	A	292	2.467	73.137	13.283	1.00	35.96	N
ATOM	4246	CA	VAL	A	292	2.826	74.326	14.066	1.00	40.42	C
ATOM	4248	CB	VAL	A	292	1.631	75.084	14.762	1.00	42.90	C
ATOM	4250	CG1	VAL	A	292	0.639	75.547	13.746	1.00	46.24	C
ATOM	4254	CG2	VAL	A	292	0.943	74.247	15.833	1.00	45.29	C
ATOM	4258	C	VAL	A	292	3.869	73.963	15.104	1.00	41.40	C
ATOM	4259	O	VAL	A	292	4.780	74.749	15.355	1.00	40.89	O
ATOM	4260	N	ASP	A	293	3.727	72.768	15.683	1.00	41.45	N
ATOM	4262	CA	ASP	A	293	4.695	72.219	16.636	1.00	41.81	C
ATOM	4264	CB	ASP	A	293	4.263	70.821	17.093	1.00	43.08	C
ATOM	4267	CG	ASP	A	293	3.151	70.863	18.126	1.00	45.73	C
ATOM	4268	OD1	ASP	A	293	2.770	69.781	18.644	1.00	43.55	O
ATOM	4269	OD2	ASP	A	293	2.589	71.933	18.474	1.00	49.62	O
ATOM	4270	C	ASP	A	293	6.107	72.149	16.048	1.00	40.69	C
ATOM	4271	O	ASP	A	293	7.029	72.752	16.585	1.00	39.04	O

327/514

Figure 5

ATOM	4272	N	LEU A 294	6.259	71.428	14.941	1.00	36.50	N
ATOM	4274	CA	LEU A 294	7.532	71.358	14.241	1.00	34.20	C
ATOM	4276	CB	LEU A 294	7.403	70.652	12.883	1.00	35.35	C
ATOM	4279	CG	LEU A 294	6.925	69.190	12.940	1.00	36.58	C
ATOM	4281	CD1	LEU A 294	6.905	68.586	11.585	1.00	37.77	C
ATOM	4285	CD2	LEU A 294	7.774	68.334	13.863	1.00	40.10	C
ATOM	4289	C	LEU A 294	8.115	72.740	14.070	1.00	34.11	C
ATOM	4290	O	LEU A 294	9.277	72.933	14.401	1.00	38.59	O
ATOM	4291	N	PHE A 295	7.327	73.713	13.606	1.00	33.64	N
ATOM	4293	CA	PHE A 295	7.842	75.101	13.449	1.00	34.16	C
ATOM	4295	CB	PHE A 295	6.811	76.054	12.816	1.00	33.42	C
ATOM	4298	CG	PHE A 295	6.737	75.957	11.327	1.00	33.85	C
ATOM	4299	CD1	PHE A 295	7.709	76.521	10.541	1.00	34.65	C
ATOM	4301	CE1	PHE A 295	7.657	76.416	9.158	1.00	38.58	C
ATOM	4303	CZ	PHE A 295	6.627	75.749	8.554	1.00	37.71	C
ATOM	4305	CE2	PHE A 295	5.646	75.185	9.325	1.00	38.83	C
ATOM	4307	CD2	PHE A 295	5.702	75.291	10.711	1.00	37.99	C
ATOM	4309	C	PHE A 295	8.302	75.704	14.767	1.00	35.16	C
ATOM	4310	O	PHE A 295	9.290	76.422	14.803	1.00	38.42	O
ATOM	4311	N	GLY A 296	7.572	75.422	15.844	1.00	37.08	N
ATOM	4313	CA	GLY A 296	7.825	76.058	17.117	1.00	38.41	C
ATOM	4316	C	GLY A 296	8.998	75.407	17.826	1.00	39.23	C
ATOM	4317	O	GLY A 296	9.917	76.098	18.293	1.00	34.32	O
ATOM	4318	N	ALA A 297	8.931	74.075	17.903	1.00	38.83	N
ATOM	4320	CA	ALA A 297	10.013	73.226	18.410	1.00	40.50	C
ATOM	4322	CB	ALA A 297	9.526	71.782	18.596	1.00	40.25	C
ATOM	4326	C	ALA A 297	11.283	73.228	17.564	1.00	41.11	C
ATOM	4327	O	ALA A 297	12.352	72.904	18.083	1.00	50.32	O
ATOM	4328	N	GLY A 298	11.179	73.610	16.295	1.00	41.08	N
ATOM	4330	CA	GLY A 298	12.275	73.477	15.343	1.00	41.53	C
ATOM	4333	C	GLY A 298	13.008	74.759	14.998	1.00	41.91	C
ATOM	4334	O	GLY A 298	14.022	74.743	14.277	1.00	43.26	O
ATOM	4335	N	THR A 299	12.508	75.866	15.533	1.00	40.02	N
ATOM	4337	CA	THR A 299	13.052	77.176	15.255	1.00	39.54	C
ATOM	4339	CB	THR A 299	11.906	78.101	14.824	1.00	40.04	C
ATOM	4341	OG1	THR A 299	11.409	77.660	13.551	1.00	44.05	O
ATOM	4343	CG2	THR A 299	12.412	79.522	14.569	1.00	42.04	C
ATOM	4347	C	THR A 299	13.814	77.786	16.436	1.00	38.00	C
ATOM	4348	O	THR A 299	15.007	78.042	16.328	1.00	34.23	O
ATOM	4349	N	GLU A 300	13.111	78.033	17.541	1.00	36.60	N
ATOM	4351	CA	GLU A 300	13.624	78.843	18.645	1.00	38.58	C
ATOM	4353	CB	GLU A 300	12.550	78.946	19.756	1.00	45.95	C
ATOM	4356	CG	GLU A 300	12.940	79.580	21.109	1.00	47.39	C
ATOM	4359	CD	GLU A 300	13.737	80.878	20.989	1.00	54.95	C
ATOM	4360	OE1	GLU A 300	14.247	81.352	22.047	1.00	61.15	O
ATOM	4361	OE2	GLU A 300	13.862	81.441	19.859	1.00	58.44	O
ATOM	4362	C	GLU A 300	14.954	78.302	19.202	1.00	38.56	C
ATOM	4363	O	GLU A 300	15.941	79.051	19.270	1.00	31.89	O
ATOM	4364	N	THR A 301	14.970	77.012	19.567	1.00	32.62	N
ATOM	4366	CA	THR A 301	16.129	76.378	20.178	1.00	31.86	C
ATOM	4368	CB	THR A 301	15.798	74.957	20.606	1.00	34.91	C
ATOM	4370	OG1	THR A 301	14.553	74.918	21.319	1.00	33.48	O
ATOM	4372	CG2	THR A 301	16.808	74.497	21.623	1.00	36.38	C
ATOM	4376	C	THR A 301	17.359	76.306	19.278	1.00	31.96	C
ATOM	4377	O	THR A 301	18.463	76.640	19.705	1.00	33.40	O
ATOM	4378	N	THR A 302	17.184	75.842	18.045	1.00	31.06	N
ATOM	4380	CA	THR A 302	18.268	75.841	17.057	1.00	30.46	C
ATOM	4382	CB	THR A 302	17.734	75.300	15.750	1.00	32.28	C
ATOM	4384	OG1	THR A 302	17.138	74.012	15.960	1.00	33.94	O
ATOM	4386	CG2	THR A 302	18.840	75.044	14.750	1.00	36.15	C
ATOM	4390	C	THR A 302	18.837	77.260	16.828	1.00	34.33	C
ATOM	4391	O	THR A 302	20.070	77.494	16.761	1.00	32.95	O
ATOM	4392	N	SER A 303	17.922	78.215	16.719	1.00	34.01	N
ATOM	4394	CA	SER A 303	18.283	79.592	16.444	1.00	33.01	C
ATOM	4396	CB	SER A 303	17.017	80.452	16.326	1.00	31.80	C
ATOM	4399	OG	SER A 303	17.338	81.811	16.088	1.00	32.26	O
ATOM	4401	C	SER A 303	19.187	80.103	17.562	1.00	35.18	C
ATOM	4402	O	SER A 303	20.242	80.697	17.308	1.00	37.37	O
ATOM	4403	N	THR A 304	18.774	79.842	18.799	1.00	31.60	N
ATOM	4405	CA	THR A 304	19.437	80.404	19.949	1.00	31.47	C
ATOM	4407	CB	THR A 304	18.551	80.243	21.199	1.00	32.14	C
ATOM	4409	OG1	THR A 304	17.343	80.976	21.026	1.00	30.00	O
ATOM	4411	CG2	THR A 304	19.180	80.893	22.400	1.00	33.91	C
ATOM	4415	C	THR A 304	20.771	79.694	20.133	1.00	30.71	C
ATOM	4416	O	THR A 304	21.757	80.301	20.564	1.00	24.09	O
ATOM	4417	N	THR A 305	20.797	78.408	19.784	1.00	30.00	N

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329/514

Figure 5

ATOM	4585	CB	LEU A 314	32.830	86.498	19.672	1.00	45.41	C
ATOM	4588	CG	LEU A 314	32.280	87.109	18.392	1.00	46.40	C
ATOM	4590	CD1	LEU A 314	31.401	88.300	18.757	1.00	46.13	C
ATOM	4594	CD2	LEU A 314	33.393	87.531	17.468	1.00	45.33	C
ATOM	4598	C	LEU A 314	34.781	85.536	20.825	1.00	44.45	C
ATOM	4599	O	LEU A 314	35.891	86.038	20.777	1.00	46.24	O
ATOM	4600	N	LYS A 315	34.229	85.071	21.938	1.00	44.37	N
ATOM	4602	CA	LYS A 315	34.851	85.159	23.249	1.00	46.08	C
ATOM	4604	CB	LYS A 315	33.849	84.663	24.306	1.00	46.00	C
ATOM	4607	CG	LYS A 315	34.362	84.538	25.738	1.00	49.15	C
ATOM	4610	CD	LYS A 315	34.574	85.875	26.401	1.00	48.81	C
ATOM	4613	CE1	LYS A 315	34.587	85.743	27.904	1.00	50.48	C
ATOM	4616	NZ	LYS A 315	34.792	87.086	28.514	1.00	53.61	N
ATOM	4620	C	LYS A 315	36.145	84.347	23.274	1.00	47.76	C
ATOM	4621	O	LYS A 315	37.145	84.797	23.833	1.00	50.82	O
ATOM	4622	N	HIS A 316	36.120	83.183	22.619	1.00	47.65	N
ATOM	4624	CA	HIS A 316	37.242	82.235	22.579	1.00	46.06	C
ATOM	4626	CB	HIS A 316	36.792	80.865	23.172	1.00	43.82	C
ATOM	4629	CG	HIS A 316	36.068	80.988	24.477	1.00	44.15	C
ATOM	4630	ND1	HIS A 316	36.712	81.269	25.659	1.00	49.16	N
ATOM	4632	CE1	HIS A 316	35.826	81.361	26.640	1.00	48.59	C
ATOM	4634	NE2	HIS A 316	34.625	81.144	26.136	1.00	45.44	N
ATOM	4636	CD2	HIS A 316	34.747	80.930	24.781	1.00	48.82	C
ATOM	4638	C	HIS A 316	37.807	82.070	21.142	1.00	42.64	C
ATOM	4639	O	HIS A 316	37.522	81.086	20.481	1.00	45.71	O
ATOM	4640	N	PRO A 317	38.609	83.012	20.652	1.00	40.21	N
ATOM	4641	CA	PRO A 317	39.135	82.916	19.279	1.00	39.19	C
ATOM	4643	CB	PRO A 317	39.787	84.285	19.040	1.00	38.72	C
ATOM	4646	CG	PRO A 317	40.094	84.806	20.382	1.00	41.48	C
ATOM	4649	CD	PRO A 317	39.076	84.226	21.338	1.00	41.29	C
ATOM	4652	C	PRO A 317	40.152	81.788	19.056	1.00	39.94	C
ATOM	4653	O	PRO A 317	40.286	81.358	17.924	1.00	38.48	O
ATOM	4654	N	GLU A 318	40.874	81.358	20.089	1.00	40.35	N
ATOM	4656	CA	GLU A 318	41.747	80.189	19.990	1.00	39.59	C
ATOM	4658	CB	GLU A 318	42.367	79.810	21.337	1.00	45.60	C
ATOM	4661	CG	GLU A 318	43.855	80.091	21.467	1.00	54.53	C
ATOM	4664	CD	GLU A 318	44.141	81.544	21.833	1.00	64.90	C
ATOM	4665	OE1	GLU A 318	44.620	82.294	20.941	1.00	69.05	O
ATOM	4666	OE2	GLU A 318	43.874	81.939	23.002	1.00	70.01	O
ATOM	4667	C	GLU A 318	40.950	79.005	19.505	1.00	37.24	C
ATOM	4668	O	GLU A 318	41.421	78.252	18.641	1.00	37.37	O
ATOM	4669	N	VAL A 319	39.750	78.846	20.073	1.00	32.73	N
ATOM	4671	CA	VAL A 319	38.834	77.759	19.723	1.00	27.37	C
ATOM	4673	CB	VAL A 319	37.617	77.766	20.615	1.00	26.11	C
ATOM	4675	CG1	VAL A 319	36.608	76.738	20.151	1.00	25.40	C
ATOM	4679	CG2	VAL A 319	38.032	77.502	22.077	1.00	28.17	C
ATOM	4683	C	VAL A 319	38.366	77.872	18.279	1.00	31.18	C
ATOM	4684	O	VAL A 319	38.243	76.877	17.556	1.00	28.15	O
ATOM	4685	N	THR A 320	38.102	79.098	17.860	1.00	32.86	N
ATOM	4687	CA	THR A 320	37.666	79.366	16.501	1.00	34.09	C
ATOM	4689	CB	THR A 320	37.231	80.820	16.456	1.00	34.43	C
ATOM	4691	OG1	THR A 320	36.133	80.982	17.364	1.00	41.73	O
ATOM	4693	CG2	THR A 320	36.680	81.212	15.120	1.00	32.24	C
ATOM	4697	C	THR A 320	38.782	79.050	15.479	1.00	36.30	C
ATOM	4698	O	THR A 320	38.574	78.299	14.523	1.00	35.76	O
ATOM	4699	N	ALA A 321	39.965	79.609	15.708	1.00	37.21	N
ATOM	4701	CA	ALA A 321	41.171	79.262	14.953	1.00	35.47	C
ATOM	4703	CB	ALA A 321	42.369	79.882	15.598	1.00	33.30	C
ATOM	4707	C	ALA A 321	41.378	77.757	14.825	1.00	35.65	C
ATOM	4708	O	ALA A 321	41.700	77.271	13.740	1.00	40.89	O
ATOM	4709	N	LYS A 322	41.169	77.010	15.906	1.00	35.57	N
ATOM	4711	CA	LYS A 322	41.341	75.555	15.843	1.00	36.74	C
ATOM	4713	CB	LYS A 322	41.362	74.913	17.231	1.00	40.60	C
ATOM	4716	CG	LYS A 322	42.676	75.165	18.015	1.00	47.44	C
ATOM	4719	CD	LYS A 322	42.932	74.115	19.119	1.00	52.90	C
ATOM	4722	CE	LYS A 322	43.940	74.612	20.170	1.00	54.64	C
ATOM	4725	NZ	LYS A 322	43.343	74.635	21.543	1.00	58.60	N
ATOM	4729	C	LYS A 322	40.294	74.895	14.967	1.00	34.24	C
ATOM	4730	O	LYS A 322	40.621	73.979	14.237	1.00	33.49	O
ATOM	4731	N	VAL A 323	39.051	75.381	15.015	1.00	35.07	N
ATOM	4733	CA	VAL A 323	37.973	74.839	14.181	1.00	32.36	C
ATOM	4735	CB	VAL A 323	36.577	75.405	14.559	1.00	31.22	C
ATOM	4737	CG1	VAL A 323	35.512	74.988	13.545	1.00	27.76	C
ATOM	4741	CG2	VAL A 323	36.168	74.928	15.927	1.00	32.45	C
ATOM	4745	C	VAL A 323	38.267	75.102	12.703	1.00	32.87	C
ATOM	4746	O	VAL A 323	38.047	74.227	11.859	1.00	25.56	O

330/514

Figure 5

ATOM	4747	N	GLN	A	324	38.783	76.291	12.397	1.00	33.29	N
ATOM	4749	CA	GLN	A	324	39.142	76.632	11.018	1.00	35.05	C
ATOM	4751	CB	GLN	A	324	39.378	78.135	10.851	1.00	33.36	C
ATOM	4754	CG	GLN	A	324	38.058	78.895	10.954	1.00	36.13	C
ATOM	4757	CD	GLN	A	324	38.211	80.394	11.048	1.00	39.46	C
ATOM	4758	OE1	GLN	A	324	37.653	81.117	10.225	1.00	45.13	O
ATOM	4759	NE2	GLN	A	324	38.939	80.871	12.055	1.00	37.61	N
ATOM	4762	C	GLN	A	324	40.299	75.790	10.464	1.00	37.37	C
ATOM	4763	O	GLN	A	324	40.287	75.500	9.284	1.00	36.64	O
ATOM	4764	N	GLU	A	325	41.264	75.376	11.292	1.00	41.50	N
ATOM	4766	CA	GLU	A	325	42.322	74.471	10.810	1.00	45.85	C
ATOM	4768	CB	GLU	A	325	43.389	74.147	11.876	1.00	49.45	C
ATOM	4771	CG	GLU	A	325	44.199	75.311	12.443	1.00	55.86	C
ATOM	4774	CD	GLU	A	325	44.723	75.050	13.894	1.00	63.74	C
ATOM	4775	OE1	GLU	A	325	45.136	76.032	14.578	1.00	66.43	O
ATOM	4776	OE2	GLU	A	325	44.730	73.879	14.382	1.00	60.05	O
ATOM	4777	C	GLU	A	325	41.702	73.145	10.340	1.00	41.29	C
ATOM	4778	O	GLU	A	325	42.127	72.570	9.330	1.00	39.43	O
ATOM	4779	N	GLU	A	326	40.727	72.649	11.097	1.00	37.26	N
ATOM	4781	CA	GLU	A	326	40.058	71.387	10.759	1.00	36.36	C
ATOM	4783	CB	GLU	A	326	39.151	70.942	11.894	1.00	36.25	C
ATOM	4786	CG	GLU	A	326	39.680	69.760	12.666	1.00	44.16	C
ATOM	4789	CD	GLU	A	326	38.692	69.235	13.699	1.00	45.43	C
ATOM	4790	OE1	GLU	A	326	38.870	68.098	14.156	1.00	42.07	O
ATOM	4791	OE2	GLU	A	326	37.747	69.958	14.055	1.00	51.06	O
ATOM	4792	C	GLU	A	326	39.231	71.519	9.484	1.00	33.91	C
ATOM	4793	O	GLU	A	326	39.096	70.579	8.721	1.00	34.90	O
ATOM	4794	N	ILE	A	327	38.673	72.703	9.264	1.00	36.11	N
ATOM	4796	CA	ILE	A	327	37.868	72.959	8.088	1.00	35.38	C
ATOM	4798	CB	ILE	A	327	37.031	74.272	8.236	1.00	34.85	C
ATOM	4800	CG1	ILE	A	327	35.808	74.072	9.161	1.00	32.43	C
ATOM	4803	CD1	ILE	A	327	35.255	75.406	9.769	1.00	27.91	C
ATOM	4807	CG2	ILE	A	327	36.528	74.727	6.910	1.00	36.52	C
ATOM	4811	C	ILE	A	327	38.794	72.978	6.858	1.00	36.05	C
ATOM	4812	O	ILE	A	327	38.494	72.297	5.899	1.00	35.24	O
ATOM	4813	N	GLU	A	328	39.933	73.676	6.907	1.00	31.70	N
ATOM	4815	CA	GLU	A	328	40.818	73.769	5.744	1.00	35.70	C
ATOM	4817	CB	GLU	A	328	41.978	74.733	5.974	1.00	42.58	C
ATOM	4820	CG	GLU	A	328	41.547	76.090	6.530	1.00	55.27	C
ATOM	4823	CD	GLU	A	328	41.939	77.281	5.669	1.00	61.81	C
ATOM	4824	OE1	GLU	A	328	42.042	78.388	6.262	1.00	63.73	O
ATOM	4825	OE2	GLU	A	328	42.134	77.115	4.431	1.00	64.09	O
ATOM	4826	C	GLU	A	328	41.395	72.434	5.390	1.00	32.26	C
ATOM	4827	O	GLU	A	328	41.567	72.111	4.232	1.00	39.89	O
ATOM	4828	N	ARG	A	329	41.689	71.657	6.405	1.00	33.18	N
ATOM	4830	CA	ARG	A	329	42.295	70.367	6.247	1.00	32.33	C
ATOM	4832	CB	ARG	A	329	42.824	69.914	7.594	1.00	37.29	C
ATOM	4835	CG	ARG	A	329	43.601	68.609	7.591	1.00	37.86	C
ATOM	4838	CD	ARG	A	329	44.437	68.435	8.850	1.00	40.77	C
ATOM	4841	NE	ARG	A	329	43.617	68.429	10.059	1.00	43.88	N
ATOM	4843	CZ	ARG	A	329	42.789	67.444	10.390	1.00	48.37	C
ATOM	4844	NH1	ARG	A	329	42.073	67.528	11.507	1.00	53.84	N
ATOM	4847	NH2	ARG	A	329	42.660	66.373	9.609	1.00	48.46	N
ATOM	4850	C	ARG	A	329	41.322	69.352	5.719	1.00	32.80	C
ATOM	4851	O	ARG	A	329	41.640	68.638	4.798	1.00	36.99	O
ATOM	4852	N	VAL	A	330	40.130	69.280	6.289	1.00	35.10	N
ATOM	4854	CA	VAL	A	330	39.210	68.179	5.964	1.00	34.67	C
ATOM	4856	CB	VAL	A	330	38.355	67.883	7.163	1.00	29.56	C
ATOM	4858	CG1	VAL	A	330	37.335	66.817	6.841	1.00	27.52	C
ATOM	4862	CG2	VAL	A	330	39.265	67.442	8.312	1.00	33.13	C
ATOM	4866	C	VAL	A	330	38.307	68.450	4.756	1.00	36.91	C
ATOM	4867	O	VAL	A	330	38.000	67.579	3.948	1.00	37.51	O
ATOM	4868	N	ILE	A	331	37.866	69.685	4.706	1.00	40.47	N
ATOM	4870	CA	ILE	A	331	37.004	70.234	3.696	1.00	43.36	C
ATOM	4872	CB	ILE	A	331	35.813	70.939	4.436	1.00	44.90	C
ATOM	4874	CG1	ILE	A	331	34.958	69.909	5.177	1.00	40.90	C
ATOM	4877	CD1	ILE	A	331	34.104	70.486	6.285	1.00	42.14	C
ATOM	4881	CG2	ILE	A	331	34.991	71.787	3.477	1.00	47.75	C
ATOM	4885	C	ILE	A	331	37.882	71.285	3.056	1.00	44.48	C
ATOM	4886	O	ILE	A	331	38.740	71.866	3.704	1.00	49.14	O
ATOM	4887	N	GLY	A	332	37.731	71.588	1.806	1.00	46.66	N
ATOM	4889	CA	GLY	A	332	38.594	72.657	1.341	1.00	52.01	C
ATOM	4892	C	GLY	A	332	38.040	74.022	1.710	1.00	56.70	C
ATOM	4893	O	GLY	A	332	37.224	74.173	2.624	1.00	52.62	O
ATOM	4894	N	ARG	A	333	38.503	75.023	0.974	1.00	61.43	N
ATOM	4896	CA	ARG	A	333	37.792	76.272	0.877	1.00	65.02	C

331/514

Figure 5

ATOM	4898	CB	ARG	A	333	38.759	77.433	0.665	1.00	69.20	C
ATOM	4901	CG	ARG	A	333	38.386	78.673	1.477	1.00	76.16	C
ATOM	4904	CD	ARG	A	333	39.563	79.582	1.773	1.00	82.47	C
ATOM	4907	NE	ARG	A	333	39.718	79.825	3.208	1.00	87.57	N
ATOM	4909	CZ	ARG	A	333	40.822	80.304	3.785	1.00	89.41	C
ATOM	4910	NH1	ARG	A	333	41.905	80.596	3.062	1.00	87.42	N
ATOM	4913	NH2	ARG	A	333	40.841	80.494	5.105	1.00	91.93	N
ATOM	4916	C	ARG	A	333	36.790	76.175	-0.275	1.00	64.51	C
ATOM	4917	O	ARG	A	333	35.810	76.914	-0.314	1.00	66.27	O
ATOM	4918	N	ASN	A	334	37.026	75.258	-1.207	1.00	63.43	N
ATOM	4920	CA	ASN	A	334	36.159	75.118	-2.373	1.00	62.62	C
ATOM	4922	CB	ASN	A	334	36.845	74.293	-3.479	1.00	62.79	C
ATOM	4925	CG	ASN	A	334	38.063	75.007	-4.069	1.00	62.48	C
ATOM	4926	OD1	ASN	A	334	39.160	74.997	-3.494	1.00	55.74	O
ATOM	4927	ND2	ASN	A	334	37.867	75.638	-5.220	1.00	64.99	N
ATOM	4930	C	ASN	A	334	34.781	74.564	-1.979	1.00	60.85	C
ATOM	4931	O	ASN	A	334	33.877	75.356	-1.681	1.00	68.90	O
ATOM	4932	N	ARG	A	335	34.614	73.241	-1.933	1.00	54.09	N
ATOM	4934	CA	ARG	A	335	33.302	72.629	-1.665	1.00	48.24	C
ATOM	4936	CB	ARG	A	335	33.361	71.116	-1.860	1.00	45.29	C
ATOM	4939	CG	ARG	A	335	34.009	70.372	-0.750	1.00	45.12	C
ATOM	4942	CD	ARG	A	335	33.907	68.877	-0.902	1.00	48.01	C
ATOM	4945	NE	ARG	A	335	33.777	68.230	0.396	1.00	53.18	N
ATOM	4947	CZ	ARG	A	335	34.784	67.900	1.183	1.00	56.61	C
ATOM	4948	NH1	ARG	A	335	36.048	68.125	0.824	1.00	62.37	N
ATOM	4951	NH2	ARG	A	335	34.522	67.328	2.344	1.00	55.54	N
ATOM	4954	C	ARG	A	335	32.648	72.935	-0.308	1.00	47.83	C
ATOM	4955	O	ARG	A	335	33.186	73.619	0.562	1.00	46.26	O
ATOM	4956	N	SER	A	336	31.442	72.434	-0.148	1.00	47.11	N
ATOM	4958	CA	SER	A	336	30.660	72.794	0.999	1.00	47.48	C
ATOM	4960	CB	SER	A	336	29.223	73.091	0.573	1.00	50.15	C
ATOM	4963	OG	SER	A	336	28.445	71.905	0.594	1.00	50.68	O
ATOM	4965	C	SER	A	336	30.751	71.606	1.943	1.00	42.70	C
ATOM	4966	O	SER	A	336	31.072	70.481	1.505	1.00	42.29	O
ATOM	4967	N	PRO	A	337	30.557	71.858	3.237	1.00	31.47	N
ATOM	4968	CA	PRO	A	337	30.601	70.792	4.219	1.00	26.65	C
ATOM	4970	CB	PRO	A	337	30.433	71.522	5.528	1.00	25.01	C
ATOM	4973	CG	PRO	A	337	30.892	72.855	5.241	1.00	28.90	C
ATOM	4976	CD	PRO	A	337	30.396	73.169	3.876	1.00	31.55	C
ATOM	4979	C	PRO	A	337	29.468	69.855	4.002	1.00	30.64	C
ATOM	4980	O	PRO	A	337	28.549	70.205	3.285	1.00	35.50	O
ATOM	4981	N	CYS	A	338	29.546	68.694	4.628	1.00	31.91	N
ATOM	4983	CA	CYS	A	338	28.492	67.721	4.617	1.00	34.56	C
ATOM	4985	CB	CYS	A	338	28.586	66.931	3.332	1.00	39.53	C
ATOM	4988	SG	CYS	A	338	30.004	65.816	3.386	1.00	48.28	S
ATOM	4989	C	CYS	A	338	28.700	66.801	5.823	1.00	34.88	C
ATOM	4990	O	CYS	A	338	29.690	66.912	6.538	1.00	33.84	O
ATOM	4991	N	MET	A	339	27.793	65.869	6.046	1.00	35.59	N
ATOM	4993	CA	MET	A	339	27.802	65.153	7.312	1.00	40.47	C
ATOM	4995	CB	MET	A	339	26.427	64.515	7.584	1.00	40.15	C
ATOM	4998	CG	MET	A	339	25.325	65.558	7.776	1.00	43.91	C
ATOM	5001	SD	MET	A	339	25.677	66.827	9.074	1.00	44.24	S
ATOM	5002	CE	MET	A	339	26.032	65.750	10.418	1.00	45.49	C
ATOM	5006	C	MET	A	339	28.945	64.145	7.423	1.00	43.56	C
ATOM	5007	O	MET	A	339	29.474	63.902	8.518	1.00	46.39	O
ATOM	5008	N	GLN	A	340	29.339	63.569	6.297	1.00	47.33	N
ATOM	5010	CA	GLN	A	340	30.466	62.634	6.298	1.00	50.71	C
ATOM	5012	CB	GLN	A	340	30.726	62.102	4.900	1.00	53.74	C
ATOM	5015	CG	GLN	A	340	30.274	60.695	4.704	1.00	60.69	C
ATOM	5018	CD	GLN	A	340	30.684	60.197	3.340	1.00	68.40	C
ATOM	5019	OE1	GLN	A	340	31.827	60.418	2.911	1.00	71.59	O
ATOM	5020	NE2	GLN	A	340	29.758	59.546	2.639	1.00	70.63	N
ATOM	5023	C	GLN	A	340	31.751	63.260	6.822	1.00	45.23	C
ATOM	5024	O	GLN	A	340	32.596	62.561	7.335	1.00	45.26	O
ATOM	5025	N	ASP	A	341	31.893	64.571	6.694	1.00	40.58	N
ATOM	5027	CA	ASP	A	341	33.072	65.254	7.204	1.00	41.29	C
ATOM	5029	CB	ASP	A	341	33.086	66.701	6.740	1.00	43.34	C
ATOM	5032	CG	ASP	A	341	33.111	66.834	5.253	1.00	42.57	C
ATOM	5033	OD1	ASP	A	341	33.576	65.898	4.575	1.00	50.82	O
ATOM	5034	OD2	ASP	A	341	32.677	67.843	4.676	1.00	42.69	O
ATOM	5035	C	ASP	A	341	33.195	65.300	8.712	1.00	41.93	C
ATOM	5036	O	ASP	A	341	34.258	65.674	9.235	1.00	38.54	O
ATOM	5037	N	ARG	A	342	32.119	64.981	9.421	1.00	41.23	N
ATOM	5039	CA	ARG	A	342	32.104	65.252	10.844	1.00	39.88	C
ATOM	5041	CB	ARG	A	342	30.684	65.312	11.384	1.00	43.34	C
ATOM	5044	CG	ARG	A	342	30.683	65.659	12.859	1.00	44.67	C

332/514

Figure 5

ATOM	5047	CD	ARG	A	342	29.371	65.881	13.450	1.00	44.32	C
ATOM	5050	NE	ARG	A	342	28.512	64.753	13.200	1.00	45.15	N
ATOM	5052	CZ	ARG	A	342	27.247	64.706	13.555	1.00	48.54	C
ATOM	5053	NH1	ARG	A	342	26.683	65.728	14.208	1.00	52.80	N
ATOM	5056	NH2	ARG	A	342	26.540	63.626	13.245	1.00	46.52	N
ATOM	5059	C	ARG	A	342	32.914	64.231	11.622	1.00	39.24	C
ATOM	5060	O	ARG	A	342	33.579	64.585	12.608	1.00	39.28	O
ATOM	5061	N	SER	A	343	32.857	62.972	11.201	1.00	35.93	N
ATOM	5063	CA	SER	A	343	33.697	61.945	11.814	1.00	37.90	C
ATOM	5065	CB	SER	A	343	33.461	60.590	11.160	1.00	38.38	C
ATOM	5068	OG	SER	A	343	34.019	60.586	9.862	1.00	45.58	O
ATOM	5070	C	SER	A	343	35.202	62.282	11.747	1.00	38.28	C
ATOM	5071	O	SER	A	343	35.956	61.893	12.637	1.00	42.41	O
ATOM	5072	N	HIS	A	344	35.631	63.008	10.717	1.00	34.71	N
ATOM	5074	CA	HIS	A	344	37.035	63.401	10.568	1.00	37.79	C
ATOM	5076	CB	HIS	A	344	37.487	63.342	9.071	1.00	42.68	C
ATOM	5079	CG	HIS	A	344	37.088	62.069	8.368	1.00	51.64	C
ATOM	5080	ND1	HIS	A	344	37.186	60.822	8.962	1.00	56.47	N
ATOM	5082	CE1	HIS	A	344	36.735	59.898	8.130	1.00	53.78	C
ATOM	5084	NE2	HIS	A	344	36.341	60.498	7.020	1.00	56.05	N
ATOM	5086	CD2	HIS	A	344	36.554	61.854	7.140	1.00	53.78	C
ATOM	5088	C	HIS	A	344	37.324	64.781	11.169	1.00	36.62	C
ATOM	5089	O	HIS	A	344	38.409	65.324	10.965	1.00	34.12	O
ATOM	5090	N	MET	A	345	36.378	65.347	11.921	1.00	37.59	N
ATOM	5092	CA	MET	A	345	36.568	66.675	12.526	1.00	39.28	C
ATOM	5094	CB	MET	A	345	35.719	67.702	11.776	1.00	40.86	C
ATOM	5097	CG	MET	A	345	36.162	67.967	10.377	1.00	38.41	C
ATOM	5100	SD	MET	A	345	34.935	68.863	9.555	1.00	35.01	S
ATOM	5101	CE	MET	A	345	35.346	70.485	9.970	1.00	32.94	C
ATOM	5105	C	MET	A	345	36.211	66.735	14.028	1.00	40.50	C
ATOM	5106	O	MET	A	345	35.282	67.475	14.423	1.00	33.64	O
ATOM	5107	N	PRO	A	346	36.980	66.023	14.863	1.00	38.22	N
ATOM	5108	CA	PRO	A	346	36.623	65.825	16.270	1.00	36.95	C
ATOM	5110	CB	PRO	A	346	37.764	64.955	16.807	1.00	39.03	C
ATOM	5113	CG	PRO	A	346	38.425	64.423	15.639	1.00	40.66	C
ATOM	5116	CD	PRO	A	346	38.281	65.408	14.557	1.00	38.22	C
ATOM	5119	C	PRO	A	346	36.552	67.107	17.074	1.00	32.38	C
ATOM	5120	O	PRO	A	346	35.610	67.264	17.833	1.00	35.28	O
ATOM	5121	N	TYR	A	347	37.537	67.985	16.929	1.00	29.23	N
ATOM	5123	CA	TYR	A	347	37.505	69.301	17.576	1.00	30.79	C
ATOM	5125	CB	TYR	A	347	38.687	70.172	17.152	1.00	26.79	C
ATOM	5128	CG	TYR	A	347	38.894	71.302	18.103	1.00	27.59	C
ATOM	5129	CD1	TYR	A	347	39.497	71.099	19.333	1.00	28.08	C
ATOM	5131	CE1	TYR	A	347	39.677	72.139	20.214	1.00	30.53	C
ATOM	5133	CZ	TYR	A	347	39.236	73.413	19.877	1.00	32.26	C
ATOM	5134	OH	TYR	A	347	39.390	74.482	20.747	1.00	32.11	O
ATOM	5136	CE2	TYR	A	347	38.627	73.622	18.669	1.00	30.41	C
ATOM	5138	CD2	TYR	A	347	38.458	72.571	17.794	1.00	29.80	C
ATOM	5140	C	TYR	A	347	36.207	70.090	17.332	1.00	30.63	C
ATOM	5141	O	TYR	A	347	35.684	70.696	18.254	1.00	33.45	O
ATOM	5142	N	THR	A	348	35.702	70.065	16.106	1.00	28.69	N
ATOM	5144	CA	THR	A	348	34.530	70.824	15.731	1.00	28.87	C
ATOM	5146	CB	THR	A	348	34.445	70.917	14.198	1.00	29.32	C
ATOM	5148	OG1	THR	A	348	35.600	71.593	13.678	1.00	30.03	O
ATOM	5150	CG2	THR	A	348	33.293	71.791	13.777	1.00	25.69	C
ATOM	5154	C	THR	A	348	33.288	70.149	16.301	1.00	30.11	C
ATOM	5155	O	THR	A	348	32.350	70.805	16.755	1.00	29.96	O
ATOM	5156	N	ASP	A	349	33.304	68.824	16.294	1.00	30.40	N
ATOM	5158	CA	ASP	A	349	32.268	68.039	16.944	1.00	29.58	C
ATOM	5160	CB	ASP	A	349	32.496	66.558	16.662	1.00	27.72	C
ATOM	5163	CG	ASP	A	349	31.218	65.759	16.657	1.00	31.62	C
ATOM	5164	OD1	ASP	A	349	30.124	66.341	16.852	1.00	37.09	O
ATOM	5165	OD2	ASP	A	349	31.213	64.522	16.483	1.00	33.39	O
ATOM	5166	C	ASP	A	349	32.248	68.306	18.463	1.00	30.96	C
ATOM	5167	O	ASP	A	349	31.211	68.252	19.103	1.00	29.35	O
ATOM	5168	N	ALA	A	350	33.402	68.613	19.032	1.00	32.56	N
ATOM	5170	CA	ALA	A	350	33.494	68.867	20.454	1.00	29.14	C
ATOM	5172	CB	ALA	A	350	34.928	68.739	20.914	1.00	27.84	C
ATOM	5176	C	ALA	A	350	32.954	70.250	20.772	1.00	29.04	C
ATOM	5177	O	ALA	A	350	32.184	70.403	21.721	1.00	28.25	O
ATOM	5178	N	VAL	A	351	33.381	71.252	20.002	1.00	24.90	N
ATOM	5180	CA	VAL	A	351	32.851	72.598	20.125	1.00	23.26	C
ATOM	5182	CB	VAL	A	351	33.371	73.502	19.031	1.00	24.46	C
ATOM	5184	CG1	VAL	A	351	32.549	74.768	18.967	1.00	27.54	C
ATOM	5188	CG2	VAL	A	351	34.817	73.886	19.289	1.00	29.26	C
ATOM	5192	C	VAL	A	351	31.304	72.602	20.062	1.00	26.71	C

334/514

Figure 5

ATOM	5344	CB	ASP	A	360	22.015	74.340	30.399	1.00	35.84	C
ATOM	5347	CG	ASP	A	360	20.963	73.677	31.266	1.00	38.31	C
ATOM	5348	OD1	ASP	A	360	20.823	74.124	32.440	1.00	43.89	O
ATOM	5349	OD2	ASP	A	360	20.230	72.745	30.865	1.00	35.52	O
ATOM	5350	C	ASP	A	360	20.277	75.225	28.708	1.00	34.02	C
ATOM	5351	O	ASP	A	360	19.709	75.792	29.627	1.00	39.31	O
ATOM	5352	N	LEU	A	361	19.822	75.229	27.466	1.00	37.37	N
ATOM	5354	CA	LEU	A	361	18.712	76.083	26.969	1.00	37.08	C
ATOM	5356	CB	LEU	A	361	18.715	76.073	25.411	1.00	34.27	C
ATOM	5359	CG	LEU	A	361	19.147	77.342	24.658	1.00	36.22	C
ATOM	5361	CD1	LEU	A	361	20.318	78.066	25.291	1.00	38.73	C
ATOM	5365	CD2	LEU	A	361	19.454	77.033	23.212	1.00	37.36	C
ATOM	5369	C	LEU	A	361	17.317	75.647	27.484	1.00	34.38	C
ATOM	5370	O	LEU	A	361	16.384	76.437	27.550	1.00	33.64	O
ATOM	5371	N	LEU	A	362	17.198	74.374	27.828	1.00	31.81	N
ATOM	5373	CA	LEU	A	362	16.001	73.816	28.405	1.00	29.27	C
ATOM	5375	CB	LEU	A	362	15.404	72.839	27.425	1.00	31.20	C
ATOM	5378	CG	LEU	A	362	15.114	73.511	26.091	1.00	37.57	C
ATOM	5380	CD1	LEU	A	362	14.665	72.465	25.098	1.00	39.93	C
ATOM	5384	CD2	LEU	A	362	14.057	74.604	26.270	1.00	40.59	C
ATOM	5388	C	LEU	A	362	16.340	73.112	29.719	1.00	28.33	C
ATOM	5389	O	LEU	A	362	16.373	71.886	29.779	1.00	28.77	O
ATOM	5390	N	PRO	A	363	16.581	73.897	30.768	1.00	30.06	N
ATOM	5391	CA	PRO	A	363	17.049	73.387	32.069	1.00	30.46	C
ATOM	5393	CB	PRO	A	363	16.998	74.628	32.940	1.00	32.09	C
ATOM	5396	CG	PRO	A	363	17.178	75.751	32.005	1.00	28.66	C
ATOM	5399	CD	PRO	A	363	16.443	75.365	30.788	1.00	28.38	C
ATOM	5402	C	PRO	A	363	16.210	72.286	32.707	1.00	32.68	C
ATOM	5403	O	PRO	A	363	16.772	71.500	33.498	1.00	33.42	O
ATOM	5404	N	THR	A	364	14.908	72.268	32.385	1.00	33.31	N
ATOM	5406	CA	THR	A	364	13.951	71.282	32.870	1.00	32.35	C
ATOM	5408	CB	THR	A	364	12.981	71.920	33.894	1.00	35.89	C
ATOM	5410	OG1	THR	A	364	12.129	72.909	33.269	1.00	33.88	O
ATOM	5412	CG2	THR	A	364	13.764	72.683	34.963	1.00	36.02	C
ATOM	5416	C	THR	A	364	13.175	70.693	31.705	1.00	35.43	C
ATOM	5417	O	THR	A	364	11.974	70.489	31.780	1.00	45.83	O
ATOM	5418	N	SER	A	365	13.908	70.337	30.664	1.00	35.48	N
ATOM	5420	CA	SER	A	365	13.375	70.111	29.337	1.00	35.40	C
ATOM	5422	CB	SER	A	365	13.524	68.652	28.914	1.00	31.45	C
ATOM	5425	OG	SER	A	365	12.951	67.847	29.874	1.00	36.34	O
ATOM	5427	C	SER	A	365	11.943	70.613	29.202	1.00	34.98	C
ATOM	5428	O	SER	A	365	11.719	71.799	29.304	1.00	28.74	O
ATOM	5429	N	LEU	A	366	11.005	69.707	28.936	1.00	35.98	N
ATOM	5431	CA	LEU	A	366	9.594	70.009	28.897	1.00	36.81	C
ATOM	5433	CB	LEU	A	366	8.989	69.683	27.519	1.00	36.92	C
ATOM	5436	CG	LEU	A	366	8.621	70.863	26.596	1.00	36.76	C
ATOM	5438	CD1	LEU	A	366	9.655	71.974	26.555	1.00	33.00	C
ATOM	5442	CD2	LEU	A	366	8.382	70.360	25.188	1.00	38.11	C
ATOM	5446	C	LEU	A	366	9.003	69.108	29.946	1.00	37.67	C
ATOM	5447	O	LEU	A	366	9.525	68.010	30.153	1.00	37.14	O
ATOM	5448	N	PRO	A	367	7.895	69.525	30.563	1.00	35.19	N
ATOM	5449	CA	PRO	A	367	7.395	68.836	31.733	1.00	34.65	C
ATOM	5451	CB	PRO	A	367	6.244	69.709	32.198	1.00	38.85	C
ATOM	5454	CG	PRO	A	367	6.330	70.950	31.423	1.00	38.94	C
ATOM	5457	CD	PRO	A	367	6.992	70.602	30.155	1.00	36.89	C
ATOM	5460	C	PRO	A	367	6.899	67.510	31.290	1.00	33.99	C
ATOM	5461	O	PRO	A	367	6.251	67.436	30.279	1.00	31.95	O
ATOM	5462	N	HIS	A	368	7.271	66.476	32.019	1.00	38.71	N
ATOM	5464	CA	HIS	A	368	6.802	65.127	31.796	1.00	41.26	C
ATOM	5466	CB	HIS	A	368	7.954	64.167	32.077	1.00	41.76	C
ATOM	5469	CG	HIS	A	368	8.858	63.966	30.910	1.00	38.54	C
ATOM	5470	ND1	HIS	A	368	8.996	62.746	30.285	1.00	37.42	N
ATOM	5472	CE1	HIS	A	368	9.845	62.870	29.283	1.00	42.40	C
ATOM	5474	NE2	HIS	A	368	10.260	64.125	29.239	1.00	41.82	N
ATOM	5476	CD2	HIS	A	368	9.665	64.829	30.251	1.00	37.83	C
ATOM	5478	C	HIS	A	368	5.621	64.840	32.729	1.00	44.94	C
ATOM	5479	O	HIS	A	368	5.198	65.708	33.501	1.00	44.24	O
ATOM	5480	N	ALA	A	369	5.094	63.621	32.662	1.00	49.31	N
ATOM	5482	CA	ALA	A	369	3.971	63.215	33.515	1.00	50.92	C
ATOM	5484	CB	ALA	A	369	2.681	63.851	33.016	1.00	54.32	C
ATOM	5488	C	ALA	A	369	3.848	61.717	33.483	1.00	46.31	C
ATOM	5489	O	ALA	A	369	3.971	61.140	32.417	1.00	45.35	O
ATOM	5490	N	VAL	A	370	3.613	61.083	34.632	1.00	49.70	N
ATOM	5492	CA	VAL	A	370	3.582	59.608	34.679	1.00	51.76	C
ATOM	5494	CB	VAL	A	370	3.823	59.023	36.090	1.00	52.59	C
ATOM	5496	CG1	VAL	A	370	5.258	59.233	36.516	1.00	54.88	C

335/514

Figure 5

ATOM	5500	CG2	VAL	A	370	2.879	59.616	37.117	1.00	56.00	C
ATOM	5504	C	VAL	A	370	2.310	59.009	34.088	1.00	53.45	C
ATOM	5505	O	VAL	A	370	1.235	59.610	34.119	1.00	51.53	O
ATOM	5506	N	THR	A	371	2.465	57.801	33.570	1.00	58.06	N
ATOM	5508	CA	THR	A	371	1.426	57.087	32.838	1.00	64.22	C
ATOM	5510	CB	THR	A	371	2.120	56.126	31.860	1.00	65.10	C
ATOM	5512	OG1	THR	A	371	2.632	56.887	30.755	1.00	64.52	O
ATOM	5514	CG2	THR	A	371	1.140	55.111	31.240	1.00	66.78	C
ATOM	5518	C	THR	A	371	0.451	56.328	33.753	1.00	68.39	C
ATOM	5519	O	THR	A	371	-0.672	56.033	33.357	1.00	70.16	O
ATOM	5520	N	CYS	A	372	0.895	56.010	34.967	1.00	74.13	N
ATOM	5522	CA	CYS	A	372	0.059	55.348	35.975	1.00	78.39	C
ATOM	5524	CB	CYS	A	372	-0.203	53.906	35.577	1.00	79.75	C
ATOM	5527	SG	CYS	A	372	1.329	53.138	35.073	1.00	86.75	S
ATOM	5528	C	CYS	A	372	0.737	55.380	37.347	1.00	79.69	C
ATOM	5529	O	CYS	A	372	1.899	55.787	37.471	1.00	78.39	O
ATOM	5530	N	ASP	A	373	0.007	54.947	38.374	1.00	81.71	N
ATOM	5532	CA	ASP	A	373	0.540	54.946	39.737	1.00	83.09	C
ATOM	5534	CB	ASP	A	373	-0.494	54.433	40.746	1.00	84.64	C
ATOM	5537	CG	ASP	A	373	-1.775	55.261	40.750	1.00	85.86	C
ATOM	5538	OD1	ASP	A	373	-2.710	54.928	39.991	1.00	86.72	O
ATOM	5539	OD2	ASP	A	373	-1.943	56.255	41.484	1.00	88.06	O
ATOM	5540	C	ASP	A	373	1.785	54.065	39.744	1.00	81.89	C
ATOM	5541	O	ASP	A	373	1.768	52.967	39.189	1.00	81.00	O
ATOM	5542	N	ILE	A	374	2.868	54.561	40.338	1.00	79.99	N
ATOM	5544	CA	ILE	A	374	4.151	53.869	40.268	1.00	79.85	C
ATOM	5546	CB	ILE	A	374	4.865	54.166	38.912	1.00	81.61	C
ATOM	5548	CG1	ILE	A	374	6.067	53.225	38.712	1.00	84.85	C
ATOM	5551	CD1	ILE	A	374	5.746	51.705	38.820	1.00	86.72	C
ATOM	5555	CG2	ILE	A	374	5.304	55.647	38.817	1.00	80.05	C
ATOM	5559	C	ILE	A	374	5.067	54.224	41.428	1.00	77.53	C
ATOM	5560	O	ILE	A	374	5.196	55.387	41.791	1.00	77.21	O
ATOM	5561	N	LYS	A	375	5.709	53.209	41.998	1.00	75.84	N
ATOM	5563	CA	LYS	A	375	6.678	53.424	43.059	1.00	74.75	C
ATOM	5565	CB	LYS	A	375	6.800	52.181	43.937	1.00	78.00	C
ATOM	5568	CG	LYS	A	375	7.562	52.434	45.237	1.00	81.14	C
ATOM	5571	CD	LYS	A	375	7.379	51.303	46.251	1.00	83.19	C
ATOM	5574	CE	LYS	A	375	8.342	50.148	45.992	1.00	82.95	C
ATOM	5577	NZ	LYS	A	375	7.879	48.913	46.673	1.00	81.62	N
ATOM	5581	C	LYS	A	375	8.012	53.742	42.426	1.00	70.55	C
ATOM	5582	O	LYS	A	375	8.498	52.977	41.607	1.00	70.03	O
ATOM	5583	N	PHE	A	376	8.602	54.872	42.784	1.00	65.90	N
ATOM	5585	CA	PHE	A	376	9.883	55.242	42.208	1.00	63.55	C
ATOM	5587	CB	PHE	A	376	9.735	56.433	41.255	1.00	62.64	C
ATOM	5590	CG	PHE	A	376	11.034	56.860	40.630	1.00	61.84	C
ATOM	5591	CD1	PHE	A	376	11.547	56.184	39.525	1.00	63.22	C
ATOM	5593	CE1	PHE	A	376	12.767	56.562	38.958	1.00	62.75	C
ATOM	5595	CZ	PHE	A	376	13.482	57.620	39.502	1.00	61.36	C
ATOM	5597	CE2	PHE	A	376	12.987	58.284	40.613	1.00	59.67	C
ATOM	5599	CD2	PHE	A	376	11.772	57.906	41.172	1.00	59.38	C
ATOM	5601	C	PHE	A	376	10.864	55.571	43.319	1.00	63.42	C
ATOM	5602	O	PHE	A	376	10.607	56.484	44.096	1.00	59.92	O
ATOM	5603	N	ARG	A	377	11.988	54.840	43.367	1.00	63.55	N
ATOM	5605	CA	ARG	A	377	12.946	54.899	44.479	1.00	64.90	C
ATOM	5607	CB	ARG	A	377	13.787	56.190	44.455	1.00	65.78	C
ATOM	5610	CG	ARG	A	377	14.558	56.448	43.159	1.00	66.64	C
ATOM	5613	CD	ARG	A	377	16.023	56.050	43.180	1.00	65.06	C
ATOM	5616	NE	ARG	A	377	16.903	57.221	43.243	1.00	64.64	N
ATOM	5618	CZ	ARG	A	377	17.932	57.465	42.427	1.00	65.04	C
ATOM	5619	NH1	ARG	A	377	18.254	56.633	41.448	1.00	65.46	N
ATOM	5622	NH2	ARG	A	377	18.658	58.563	42.593	1.00	68.71	N
ATOM	5625	C	ARG	A	377	12.193	54.778	45.807	1.00	67.20	C
ATOM	5626	O	ARG	A	377	12.446	55.542	46.764	1.00	63.23	O
ATOM	5627	N	ASN	A	378	11.247	53.833	45.835	1.00	68.64	N
ATOM	5629	CA	ASN	A	378	10.378	53.615	46.979	1.00	71.70	C
ATOM	5631	CB	ASN	A	378	11.249	53.079	48.130	1.00	74.51	C
ATOM	5634	CG	ASN	A	378	10.442	52.595	49.317	1.00	79.16	C
ATOM	5635	OD1	ASN	A	378	10.807	52.859	50.464	1.00	82.37	O
ATOM	5636	ND2	ASN	A	378	9.342	51.881	49.056	1.00	83.72	N
ATOM	5639	C	ASN	A	378	9.563	54.872	47.411	1.00	72.67	C
ATOM	5640	O	ASN	A	378	9.567	55.203	48.599	1.00	73.51	O
ATOM	5641	N	TYR	A	379	8.871	55.561	46.478	1.00	72.33	N
ATOM	5643	CA	TYR	A	379	8.138	56.813	46.820	1.00	72.28	C
ATOM	5645	CB	TYR	A	379	8.849	58.062	46.265	1.00	70.80	C
ATOM	5648	CG	TYR	A	379	9.936	58.580	47.178	1.00	69.60	C
ATOM	5649	CD1	TYR	A	379	11.265	58.682	46.740	1.00	68.26	C

336/514

Figure 5

ATOM	5651	CE1	TYR	A	379	12.268	59.136	47.592	1.00	68.17	C
ATOM	5653	CZ	TYR	A	379	11.941	59.482	48.897	1.00	68.52	C
ATOM	5654	OH	TYR	A	379	12.910	59.933	49.758	1.00	68.54	O
ATOM	5656	CE2	TYR	A	379	10.637	59.378	49.348	1.00	66.97	C
ATOM	5658	CD2	TYR	A	379	9.647	58.933	48.492	1.00	67.41	C
ATOM	5660	C	TYR	A	379	6.637	56.920	46.493	1.00	74.73	C
ATOM	5661	O	TYR	A	379	5.950	57.771	47.087	1.00	80.37	O
ATOM	5662	N	LEU	A	380	6.128	56.074	45.599	1.00	73.85	N
ATOM	5664	CA	LEU	A	380	4.720	56.131	45.144	1.00	74.67	C
ATOM	5666	CB	LEU	A	380	3.705	55.770	46.259	1.00	75.96	C
ATOM	5669	CG	LEU	A	380	2.211	56.098	45.998	1.00	76.68	C
ATOM	5671	CD1	LEU	A	380	1.678	55.405	44.721	1.00	74.64	C
ATOM	5675	CD2	LEU	A	380	1.324	55.775	47.237	1.00	77.75	C
ATOM	5679	C	LEU	A	380	4.361	57.485	44.525	1.00	72.92	C
ATOM	5680	O	LEU	A	380	4.202	58.493	45.229	1.00	72.31	O
ATOM	5681	N	ILE	A	381	4.216	57.482	43.202	1.00	69.57	N
ATOM	5683	CA	ILE	A	381	3.912	58.682	42.440	1.00	65.88	C
ATOM	5685	CB	ILE	A	381	5.102	59.087	41.539	1.00	66.32	C
ATOM	5687	CG1	ILE	A	381	6.291	59.528	42.400	1.00	67.08	C
ATOM	5690	CD1	ILE	A	381	7.615	59.611	41.649	1.00	67.61	C
ATOM	5694	CG2	ILE	A	381	4.695	60.217	40.587	1.00	65.68	C
ATOM	5698	C	ILE	A	381	2.679	58.376	41.609	1.00	60.46	C
ATOM	5699	O	ILE	A	381	2.724	57.554	40.702	1.00	57.61	O
ATOM	5700	N	PRO	A	382	1.577	59.044	41.919	1.00	59.04	N
ATOM	5701	CA	PRO	A	382	0.291	58.728	41.280	1.00	59.48	C
ATOM	5703	CB	PRO	A	382	-0.740	59.454	42.165	1.00	57.06	C
ATOM	5706	CG	PRO	A	382	0.018	60.513	42.894	1.00	57.04	C
ATOM	5709	CD	PRO	A	382	1.464	60.147	42.891	1.00	58.04	C
ATOM	5712	C	PRO	A	382	0.183	59.178	39.819	1.00	57.50	C
ATOM	5713	O	PRO	A	382	0.771	60.191	39.435	1.00	52.62	O
ATOM	5714	N	LYS	A	383	-0.576	58.407	39.044	1.00	57.01	N
ATOM	5716	CA	LYS	A	383	-0.850	58.672	37.624	1.00	58.31	C
ATOM	5718	CB	LYS	A	383	-2.065	57.856	37.162	1.00	60.06	C
ATOM	5721	CG	LYS	A	383	-2.364	57.923	35.663	1.00	63.41	C
ATOM	5724	CD	LYS	A	383	-3.314	56.789	35.219	1.00	64.44	C
ATOM	5727	CE	LYS	A	383	-3.776	56.971	33.776	1.00	64.20	C
ATOM	5730	NZ	LYS	A	383	-5.063	56.290	33.481	1.00	64.15	N
ATOM	5734	C	LYS	A	383	-1.129	60.137	37.327	1.00	56.44	C
ATOM	5735	O	LYS	A	383	-1.916	60.774	38.014	1.00	59.04	O
ATOM	5736	N	GLY	A	384	-0.475	60.658	36.296	1.00	53.71	N
ATOM	5738	CA	GLY	A	384	-0.707	62.005	35.829	1.00	50.94	C
ATOM	5741	C	GLY	A	384	-0.051	63.083	36.657	1.00	49.27	C
ATOM	5742	O	GLY	A	384	-0.271	64.266	36.394	1.00	48.92	O
ATOM	5743	N	THR	A	385	0.743	62.690	37.651	1.00	48.30	N
ATOM	5745	CA	THR	A	385	1.552	63.644	38.405	1.00	47.88	C
ATOM	5747	CB	THR	A	385	2.265	62.975	39.544	1.00	48.26	C
ATOM	5749	OG1	THR	A	385	1.309	62.502	40.499	1.00	55.82	O
ATOM	5751	CG2	THR	A	385	3.133	63.982	40.298	1.00	46.09	C
ATOM	5755	C	THR	A	385	2.619	64.199	37.510	1.00	46.80	C
ATOM	5756	O	THR	A	385	3.356	63.448	36.886	1.00	50.00	O
ATOM	5757	N	THR	A	386	2.714	65.512	37.469	1.00	44.57	N
ATOM	5759	CA	THR	A	386	3.714	66.173	36.656	1.00	44.39	C
ATOM	5761	CB	THR	A	386	3.381	67.653	36.597	1.00	44.49	C
ATOM	5763	OG1	THR	A	386	2.143	67.841	35.901	1.00	42.09	O
ATOM	5765	CG2	THR	A	386	4.423	68.413	35.796	1.00	44.50	C
ATOM	5769	C	THR	A	386	5.138	65.986	37.205	1.00	43.69	C
ATOM	5770	O	THR	A	386	5.372	66.091	38.415	1.00	44.01	O
ATOM	5771	N	ILE	A	387	6.067	65.719	36.284	1.00	43.27	N
ATOM	5773	CA	ILE	A	387	7.492	65.486	36.556	1.00	40.10	C
ATOM	5775	CB	ILE	A	387	7.954	64.107	35.995	1.00	39.64	C
ATOM	5777	CG1	ILE	A	387	6.922	62.994	36.241	1.00	39.36	C
ATOM	5780	CD1	ILE	A	387	6.728	62.634	37.701	1.00	38.81	C
ATOM	5784	CG2	ILE	A	387	9.276	63.722	36.606	1.00	41.73	C
ATOM	5788	C	ILE	A	387	8.344	66.554	35.872	1.00	36.22	C
ATOM	5789	O	ILE	A	387	8.190	66.782	34.690	1.00	35.52	O
ATOM	5790	N	LEU	A	388	9.237	67.210	36.608	1.00	35.06	N
ATOM	5792	CA	LEU	A	388	10.279	68.019	35.994	1.00	34.37	C
ATOM	5794	CB	LEU	A	388	10.406	69.341	36.696	1.00	34.27	C
ATOM	5797	CG	LEU	A	388	9.242	70.277	36.433	1.00	38.78	C
ATOM	5799	CD1	LEU	A	388	9.480	71.551	37.200	1.00	41.85	C
ATOM	5803	CD2	LEU	A	388	9.071	70.575	34.959	1.00	41.18	C
ATOM	5807	C	LEU	A	388	11.627	67.296	36.034	1.00	35.56	C
ATOM	5808	O	LEU	A	388	12.179	67.065	37.099	1.00	35.36	O
ATOM	5809	N	ILE	A	389	12.123	66.927	34.859	1.00	35.34	N
ATOM	5811	CA	ILE	A	389	13.467	66.407	34.672	1.00	35.40	C
ATOM	5813	CB	ILE	A	389	13.567	65.772	33.269	1.00	39.52	C

337/514

Figure 5

ATOM	5815	CG1	ILE	A	389	12.494	64.695	33.061	1.00	40.50	C
ATOM	5818	CD1	ILE	A	389	12.329	63.746	34.200	1.00	41.56	C
ATOM	5822	CG2	ILE	A	389	14.966	65.228	33.017	1.00	43.27	C
ATOM	5826	C	ILE	A	389	14.410	67.598	34.708	1.00	34.32	C
ATOM	5827	O	ILE	A	389	14.215	68.531	33.918	1.00	32.33	O
ATOM	5828	N	SER	A	390	15.415	67.590	35.591	1.00	30.58	N
ATOM	5830	CA	SER	A	390	16.431	68.639	35.564	1.00	31.32	C
ATOM	5832	CB	SER	A	390	17.064	68.866	36.929	1.00	31.83	C
ATOM	5835	OG	SER	A	390	18.256	69.658	36.795	1.00	30.75	O
ATOM	5837	C	SER	A	390	17.532	68.273	34.590	1.00	32.00	C
ATOM	5838	O	SER	A	390	18.491	67.635	34.965	1.00	32.15	O
ATOM	5839	N	LEU	A	391	17.422	68.690	33.342	1.00	32.96	N
ATOM	5841	CA	LEU	A	391	18.541	68.500	32.423	1.00	34.90	C
ATOM	5843	CB	LEU	A	391	18.177	68.953	31.009	1.00	32.49	C
ATOM	5846	CG	LEU	A	391	17.068	68.168	30.316	1.00	27.67	C
ATOM	5848	CD1	LEU	A	391	17.062	68.477	28.849	1.00	25.20	C
ATOM	5852	CD2	LEU	A	391	17.215	66.705	30.545	1.00	28.90	C
ATOM	5856	C	LEU	A	391	19.836	69.208	32.866	1.00	34.94	C
ATOM	5857	O	LEU	A	391	20.904	68.727	32.551	1.00	33.78	O
ATOM	5858	N	THR	A	392	19.745	70.333	33.581	1.00	36.31	N
ATOM	5860	CA	THR	A	392	20.956	71.049	34.049	1.00	35.87	C
ATOM	5862	CB	THR	A	392	20.613	72.255	34.929	1.00	31.25	C
ATOM	5864	OG1	THR	A	392	19.680	73.093	34.266	1.00	33.17	O
ATOM	5866	CG2	THR	A	392	21.847	73.133	35.119	1.00	32.50	C
ATOM	5870	C	THR	A	392	21.849	70.154	34.901	1.00	36.28	C
ATOM	5871	O	THR	A	392	23.053	70.234	34.850	1.00	29.00	O
ATOM	5872	N	SER	A	393	21.222	69.343	35.726	1.00	36.45	N
ATOM	5874	CA	SER	A	393	21.944	68.582	36.705	1.00	36.95	C
ATOM	5876	CB	SER	A	393	20.950	67.910	37.635	1.00	37.07	C
ATOM	5879	OG	SER	A	393	20.137	67.032	36.885	1.00	34.34	O
ATOM	5881	C	SER	A	393	22.797	67.529	36.021	1.00	38.25	C
ATOM	5882	O	SER	A	393	23.839	67.133	36.555	1.00	39.77	O
ATOM	5883	N	VAL	A	394	22.327	67.059	34.868	1.00	35.38	N
ATOM	5885	CA	VAL	A	394	23.051	66.099	34.048	1.00	35.66	C
ATOM	5887	CB	VAL	A	394	22.085	65.354	33.139	1.00	35.63	C
ATOM	5889	CG1	VAL	A	394	22.821	64.364	32.270	1.00	37.48	C
ATOM	5893	CG2	VAL	A	394	21.042	64.640	33.974	1.00	35.81	C
ATOM	5897	C	VAL	A	394	24.125	66.781	33.185	1.00	36.57	C
ATOM	5898	O	VAL	A	394	25.278	66.338	33.166	1.00	34.26	O
ATOM	5899	N	LEU	A	395	23.742	67.863	32.497	1.00	34.00	N
ATOM	5901	CA	LEU	A	395	24.644	68.620	31.608	1.00	30.95	C
ATOM	5903	CB	LEU	A	395	23.885	69.674	30.777	1.00	30.78	C
ATOM	5906	CG	LEU	A	395	23.238	69.233	29.450	1.00	33.56	C
ATOM	5908	CD1	LEU	A	395	22.535	67.932	29.592	1.00	36.48	C
ATOM	5912	CD2	LEU	A	395	22.234	70.262	28.903	1.00	33.35	C
ATOM	5916	C	LEU	A	395	25.754	69.319	32.360	1.00	29.48	C
ATOM	5917	O	LEU	A	395	26.785	69.613	31.796	1.00	33.11	O
ATOM	5918	N	HIS	A	396	25.550	69.614	33.625	1.00	32.67	N
ATOM	5920	CA	HIS	A	396	26.524	70.388	34.398	1.00	33.53	C
ATOM	5922	CB	HIS	A	396	25.940	71.740	34.818	1.00	33.63	C
ATOM	5925	CG	HIS	A	396	25.898	72.746	33.722	1.00	36.91	C
ATOM	5926	ND1	HIS	A	396	25.908	74.096	33.972	1.00	42.49	N
ATOM	5928	CE1	HIS	A	396	25.862	74.749	32.827	1.00	46.52	C
ATOM	5930	NE2	HIS	A	396	25.828	73.868	31.843	1.00	40.19	N
ATOM	5932	CD2	HIS	A	396	25.857	72.609	32.376	1.00	39.52	C
ATOM	5934	C	HIS	A	396	26.955	69.609	35.629	1.00	32.94	C
ATOM	5935	O	HIS	A	396	27.419	70.205	36.602	1.00	30.47	O
ATOM	5936	N	ASP	A	397	26.801	68.284	35.557	1.00	34.25	N
ATOM	5938	CA	ASP	A	397	27.365	67.354	36.535	1.00	36.99	C
ATOM	5940	CB	ASP	A	397	27.322	65.926	35.998	1.00	38.31	C
ATOM	5943	CG	ASP	A	397	27.641	64.917	37.053	1.00	41.12	C
ATOM	5944	OD1	ASP	A	397	28.821	64.526	37.188	1.00	46.09	O
ATOM	5945	OD2	ASP	A	397	26.773	64.461	37.811	1.00	42.04	O
ATOM	5946	C	ASP	A	397	28.800	67.689	36.840	1.00	40.31	C
ATOM	5947	O	ASP	A	397	29.635	67.702	35.934	1.00	42.34	O
ATOM	5948	N	ASN	A	398	29.077	67.937	38.117	1.00	44.91	N
ATOM	5950	CA	ASN	A	398	30.399	68.355	38.580	1.00	46.66	C
ATOM	5952	CB	ASN	A	398	30.393	68.573	40.096	1.00	49.60	C
ATOM	5955	CG	ASN	A	398	31.017	69.872	40.458	1.00	57.55	C
ATOM	5956	OD1	ASN	A	398	30.388	70.729	41.089	1.00	68.60	O
ATOM	5957	ND2	ASN	A	398	32.245	70.076	39.992	1.00	61.83	N
ATOM	5960	C	ASN	A	398	31.523	67.384	38.259	1.00	45.61	C
ATOM	5961	O	ASN	A	398	32.679	67.770	38.167	1.00	47.97	O
ATOM	5962	N	LYS	A	399	31.189	66.117	38.131	1.00	42.34	N
ATOM	5964	CA	LYS	A	399	32.204	65.101	38.093	1.00	41.32	C
ATOM	5966	CB	LYS	A	399	31.724	63.869	38.861	1.00	42.59	C

338/514

Figure 5

ATOM	5969	CG	LYS	A	399	32.682	62.722	38.871	1.00	48.12	C
ATOM	5972	CD	LYS	A	399	32.170	61.597	39.762	1.00	54.03	C
ATOM	5975	CE	LYS	A	399	33.121	60.404	39.770	1.00	53.46	C
ATOM	5978	NZ	LYS	A	399	33.238	59.831	41.126	1.00	57.21	N
ATOM	5982	C	LYS	A	399	32.515	64.787	36.646	1.00	42.47	C
ATOM	5983	O	LYS	A	399	33.685	64.748	36.274	1.00	46.52	O
ATOM	5984	N	GLU	A	400	31.493	64.580	35.814	1.00	39.43	N
ATOM	5986	CA	GLU	A	400	31.749	64.293	34.404	1.00	39.50	C
ATOM	5988	CB	GLU	A	400	30.490	63.847	33.676	1.00	40.82	C
ATOM	5991	CG	GLU	A	400	30.745	63.417	32.233	1.00	40.89	C
ATOM	5994	CD	GLU	A	400	31.004	61.938	32.075	1.00	41.16	C
ATOM	5995	OE1	GLU	A	400	30.936	61.419	30.933	1.00	38.87	O
ATOM	5996	OE2	GLU	A	400	31.274	61.282	33.093	1.00	49.13	O
ATOM	5997	C	GLU	A	400	32.366	65.487	33.678	1.00	40.08	C
ATOM	5998	O	GLU	A	400	33.215	65.301	32.796	1.00	38.87	O
ATOM	5999	N	PHE	A	401	31.956	66.698	34.064	1.00	40.11	N
ATOM	6001	CA	PHE	A	401	32.443	67.933	33.447	1.00	38.76	C
ATOM	6003	CB	PHE	A	401	31.302	68.647	32.677	1.00	36.25	C
ATOM	6006	CG	PHE	A	401	30.501	67.727	31.733	1.00	31.77	C
ATOM	6007	CD1	PHE	A	401	29.250	67.281	32.076	1.00	29.79	C
ATOM	6009	CE1	PHE	A	401	28.512	66.447	31.222	1.00	30.24	C
ATOM	6011	CZ	PHE	A	401	29.025	66.057	30.022	1.00	29.71	C
ATOM	6013	CE2	PHE	A	401	30.278	66.495	29.658	1.00	33.60	C
ATOM	6015	CD2	PHE	A	401	31.010	67.329	30.505	1.00	33.67	C
ATOM	6017	C	PHE	A	401	33.065	68.832	34.530	1.00	43.65	C
ATOM	6018	O	PHE	A	401	32.404	69.688	35.071	1.00	47.18	O
ATOM	6019	N	PRO	A	402	34.349	68.648	34.825	1.00	51.87	N
ATOM	6020	CA	PRO	A	402	34.995	69.266	35.987	1.00	53.71	C
ATOM	6022	CB	PRO	A	402	36.457	68.961	35.754	1.00	53.08	C
ATOM	6025	CG	PRO	A	402	36.410	67.687	35.090	1.00	54.91	C
ATOM	6028	CD	PRO	A	402	35.303	67.802	34.094	1.00	54.31	C
ATOM	6031	C	PRO	A	402	34.808	70.755	36.219	1.00	56.08	C
ATOM	6032	O	PRO	A	402	34.720	71.122	37.399	1.00	64.24	O
ATOM	6033	N	ASN	A	403	34.771	71.604	35.204	1.00	51.48	N
ATOM	6035	CA	ASN	A	403	34.413	72.997	35.483	1.00	51.00	C
ATOM	6037	CB	ASN	A	403	35.524	73.933	35.076	1.00	54.92	C
ATOM	6040	CG	ASN	A	403	36.816	73.609	35.764	1.00	59.63	C
ATOM	6041	OD1	ASN	A	403	36.941	73.793	36.978	1.00	63.01	O
ATOM	6042	ND2	ASN	A	403	37.791	73.110	34.998	1.00	57.27	N
ATOM	6045	C	ASN	A	403	33.159	73.313	34.733	1.00	47.49	C
ATOM	6046	O	ASN	A	403	33.217	73.936	33.681	1.00	46.88	O
ATOM	6047	N	PRO	A	404	32.023	72.866	35.255	1.00	44.74	N
ATOM	6048	CA	PRO	A	404	30.831	72.701	34.426	1.00	43.70	C
ATOM	6050	CB	PRO	A	404	29.841	71.973	35.342	1.00	45.99	C
ATOM	6053	CG	PRO	A	404	30.552	71.683	36.617	1.00	45.62	C
ATOM	6056	CD	PRO	A	404	31.755	72.541	36.662	1.00	45.54	C
ATOM	6059	C	PRO	A	404	30.241	74.006	33.969	1.00	43.79	C
ATOM	6060	O	PRO	A	404	29.505	73.970	32.998	1.00	41.17	O
ATOM	6061	N	GLU	A	405	30.535	75.110	34.657	1.00	46.07	N
ATOM	6063	CA	GLU	A	405	29.961	76.422	34.324	1.00	49.59	C
ATOM	6065	CB	GLU	A	405	29.570	77.196	35.594	1.00	52.86	C
ATOM	6068	CG	GLU	A	405	28.387	76.581	36.369	1.00	60.24	C
ATOM	6071	CD	GLU	A	405	27.416	77.611	36.977	1.00	67.52	C
ATOM	6072	OE1	GLU	A	405	27.871	78.645	37.545	1.00	69.51	O
ATOM	6073	OE2	GLU	A	405	26.179	77.379	36.889	1.00	73.07	O
ATOM	6074	C	GLU	A	405	30.928	77.217	33.460	1.00	46.84	C
ATOM	6075	O	GLU	A	405	30.767	78.422	33.244	1.00	43.37	O
ATOM	6076	N	MET	A	406	31.923	76.490	32.955	1.00	46.95	N
ATOM	6078	CA	MET	A	406	32.969	77.002	32.084	1.00	46.84	C
ATOM	6080	CB	MET	A	406	34.319	76.692	32.693	1.00	50.57	C
ATOM	6083	CG	MET	A	406	34.640	77.537	33.896	1.00	56.54	C
ATOM	6086	SD	MET	A	406	35.958	78.673	33.461	1.00	66.87	S
ATOM	6087	CE	MET	A	406	37.453	77.430	33.180	1.00	61.78	C
ATOM	6091	C	MET	A	406	32.887	76.331	30.713	1.00	42.91	C
ATOM	6092	O	MET	A	406	32.641	75.113	30.597	1.00	43.98	O
ATOM	6093	N	PHE	A	407	33.092	77.141	29.685	1.00	36.95	N
ATOM	6095	CA	PHE	A	407	33.052	76.679	28.299	1.00	38.01	C
ATOM	6097	CB	PHE	A	407	32.722	77.844	27.360	1.00	36.42	C
ATOM	6100	CG	PHE	A	407	32.740	77.467	25.914	1.00	33.00	C
ATOM	6101	CD1	PHE	A	407	31.701	76.708	25.367	1.00	33.10	C
ATOM	6103	CE1	PHE	A	407	31.711	76.355	24.034	1.00	29.50	C
ATOM	6105	CZ	PHE	A	407	32.768	76.752	23.232	1.00	33.31	C
ATOM	6107	CE2	PHE	A	407	33.805	77.505	23.762	1.00	29.62	C
ATOM	6109	CD2	PHE	A	407	33.791	77.844	25.105	1.00	29.09	C
ATOM	6111	C	PHE	A	407	34.391	76.078	27.893	1.00	37.04	C
ATOM	6112	O	PHE	A	407	35.406	76.773	27.821	1.00	38.51	O

339/514

Figure 5

ATOM	6113	N	ASP	A	408	34.412	74.784	27.639	1.00	34.95	N
ATOM	6115	CA	ASP	A	408	35.675	74.153	27.294	1.00	36.36	C
ATOM	6117	CB	ASP	A	408	36.471	73.840	28.549	1.00	39.24	C
ATOM	6120	CG	ASP	A	408	37.788	73.174	28.233	1.00	41.88	C
ATOM	6121	OD1	ASP	A	408	38.231	72.363	29.069	1.00	48.44	O
ATOM	6122	OD2	ASP	A	408	38.437	73.390	27.181	1.00	40.96	O
ATOM	6123	C	ASP	A	408	35.497	72.893	26.466	1.00	30.03	C
ATOM	6124	O	ASP	A	408	35.082	71.858	26.986	1.00	27.05	O
ATOM	6125	N	PRO	A	409	35.817	72.976	25.182	1.00	24.57	N
ATOM	6126	CA	PRO	A	409	35.654	71.834	24.276	1.00	27.47	C
ATOM	6128	CB	PRO	A	409	36.260	72.327	22.965	1.00	29.98	C
ATOM	6131	CG	PRO	A	409	36.189	73.818	23.048	1.00	30.73	C
ATOM	6134	CD	PRO	A	409	36.330	74.165	24.488	1.00	27.49	C
ATOM	6137	C	PRO	A	409	36.347	70.556	24.741	1.00	26.48	C
ATOM	6138	O	PRO	A	409	35.884	69.494	24.369	1.00	23.82	O
ATOM	6139	N	HIS	A	410	37.412	70.647	25.543	1.00	30.38	N
ATOM	6141	CA	HIS	A	410	38.074	69.439	26.065	1.00	29.76	C
ATOM	6143	CB	HIS	A	410	39.403	69.769	26.759	1.00	29.24	C
ATOM	6146	CG	HIS	A	410	40.382	70.366	25.810	1.00	32.24	C
ATOM	6147	ND1	HIS	A	410	40.821	69.684	24.693	1.00	29.54	N
ATOM	6149	CE1	HIS	A	410	41.578	70.487	23.966	1.00	34.93	C
ATOM	6151	NE2	HIS	A	410	41.627	71.670	24.558	1.00	33.83	N
ATOM	6153	CD2	HIS	A	410	40.884	71.620	25.714	1.00	33.43	C
ATOM	6155	C	HIS	A	410	37.177	68.568	26.903	1.00	28.79	C
ATOM	6156	O	HIS	A	410	37.487	67.401	27.112	1.00	33.28	O
ATOM	6157	N	HIS	A	411	36.047	69.112	27.345	1.00	29.97	N
ATOM	6159	CA	HIS	A	411	34.991	68.305	27.940	1.00	28.38	C
ATOM	6161	CB	HIS	A	411	33.761	69.171	28.239	1.00	35.00	C
ATOM	6164	CG	HIS	A	411	33.890	70.024	29.470	1.00	36.98	C
ATOM	6165	ND1	HIS	A	411	34.016	69.489	30.729	1.00	34.28	N
ATOM	6167	CE1	HIS	A	411	34.106	70.473	31.609	1.00	42.10	C
ATOM	6169	NE2	HIS	A	411	34.027	71.623	30.966	1.00	38.02	N
ATOM	6171	CD2	HIS	A	411	33.881	71.371	29.628	1.00	36.49	C
ATOM	6173	C	HIS	A	411	34.569	67.141	27.054	1.00	22.28	C
ATOM	6174	O	HIS	A	411	34.054	66.172	27.549	1.00	18.01	O
ATOM	6175	N	PHE	A	412	34.726	67.264	25.738	1.00	27.32	N
ATOM	6177	CA	PHE	A	412	34.381	66.189	24.810	1.00	29.86	C
ATOM	6179	CB	PHE	A	412	33.201	66.617	23.934	1.00	32.60	C
ATOM	6182	CG	PHE	A	412	31.917	66.820	24.695	1.00	32.56	C
ATOM	6183	CD1	PHE	A	412	31.584	68.064	25.210	1.00	35.09	C
ATOM	6185	CE1	PHE	A	412	30.422	68.229	25.932	1.00	33.75	C
ATOM	6187	C2	PHE	A	412	29.567	67.154	26.115	1.00	32.37	C
ATOM	6189	CE2	PHE	A	412	29.886	65.931	25.601	1.00	29.38	C
ATOM	6191	CD2	PHE	A	412	31.048	65.767	24.898	1.00	31.77	C
ATOM	6193	C	PHE	A	412	35.588	65.742	23.943	1.00	34.43	C
ATOM	6194	O	PHE	A	412	35.402	65.139	22.879	1.00	32.85	O
ATOM	6195	N	LEU	A	413	36.815	66.020	24.407	1.00	34.91	N
ATOM	6197	CA	LEU	A	413	38.041	65.468	23.800	1.00	35.09	C
ATOM	6199	CB	LEU	A	413	38.906	66.612	23.307	1.00	33.81	C
ATOM	6202	CG	LEU	A	413	38.275	67.399	22.168	1.00	32.70	C
ATOM	6204	CD1	LEU	A	413	39.067	68.651	21.872	1.00	30.39	C
ATOM	6208	CD2	LEU	A	413	38.129	66.493	20.945	1.00	31.38	C
ATOM	6212	C	LEU	A	413	38.873	64.588	24.751	1.00	36.69	C
ATOM	6213	O	LEU	A	413	38.920	64.863	25.954	1.00	38.17	O
ATOM	6214	N	ASP	A	414	39.532	63.545	24.216	1.00	35.15	N
ATOM	6216	CA	ASP	A	414	40.549	62.792	24.980	1.00	30.66	C
ATOM	6218	CB	ASP	A	414	40.625	61.286	24.621	1.00	24.52	C
ATOM	6221	CG	ASP	A	414	40.991	61.011	23.170	1.00	32.47	C
ATOM	6222	OD1	ASP	A	414	40.670	59.890	22.676	1.00	31.72	O
ATOM	6223	OD2	ASP	A	414	41.593	61.827	22.439	1.00	33.27	O
ATOM	6224	C	ASP	A	414	41.891	63.530	24.863	1.00	33.27	C
ATOM	6225	O	ASP	A	414	41.937	64.671	24.345	1.00	29.65	O
ATOM	6226	N	GLU	A	415	42.946	62.933	25.419	1.00	34.72	N
ATOM	6228	CA	GLU	A	415	44.280	63.549	25.429	1.00	37.95	C
ATOM	6230	CB	GLU	A	415	45.239	62.771	26.331	1.00	40.90	C
ATOM	6233	CG	GLU	A	415	45.776	61.478	25.734	1.00	42.52	C
ATOM	6236	CD	GLU	A	415	44.719	60.414	25.559	1.00	44.47	C
ATOM	6237	OE1	GLU	A	415	44.860	59.634	24.593	1.00	45.71	O
ATOM	6238	OE2	GLU	A	415	43.769	60.355	26.386	1.00	45.23	O
ATOM	6239	C	GLU	A	415	44.872	63.728	24.020	1.00	37.73	C
ATOM	6240	O	GLU	A	415	45.528	64.728	23.768	1.00	30.77	O
ATOM	6241	N	GLY	A	416	44.629	62.782	23.107	1.00	37.92	N
ATOM	6243	CA	GLY	A	416	44.871	63.031	21.688	1.00	42.84	C
ATOM	6246	C	GLY	A	416	43.796	64.013	21.275	1.00	45.28	C
ATOM	6247	O	GLY	A	416	43.005	64.467	22.100	1.00	54.88	O
ATOM	6248	N	GLY	A	417	43.660	64.351	20.023	1.00	44.07	N

Figure 5

ATOM	6250	CA	GLY	A	417	42.496	65.194	19.733	1.00	43.80	C
ATOM	6253	C	GLY	A	417	41.151	64.483	19.536	1.00	37.32	C
ATOM	6254	O	GLY	A	417	40.287	65.054	18.943	1.00	38.95	O
ATOM	6255	N	ASN	A	418	40.970	63.251	19.984	1.00	35.14	N
ATOM	6257	CA	ASN	A	418	39.800	62.466	19.575	1.00	34.88	C
ATOM	6259	CB	ASN	A	418	40.092	60.966	19.670	1.00	38.57	C
ATOM	6262	CG	ASN	A	418	41.423	60.591	19.030	1.00	44.68	C
ATOM	6263	OD1	ASN	A	418	42.342	60.084	19.701	1.00	48.99	O
ATOM	6264	ND2	ASN	A	418	41.537	60.840	17.732	1.00	37.89	N
ATOM	6267	C	ASN	A	418	38.515	62.774	20.322	1.00	32.24	C
ATOM	6268	O	ASN	A	418	38.533	63.168	21.462	1.00	30.52	O
ATOM	6269	N	PHE	A	419	37.382	62.552	19.662	1.00	34.31	N
ATOM	6271	CA	PHE	A	419	36.084	62.918	20.201	1.00	28.12	C
ATOM	6273	CB	PHE	A	419	34.994	62.934	19.125	1.00	28.67	C
ATOM	6276	CG	PHE	A	419	33.634	63.260	19.675	1.00	28.79	C
ATOM	6277	CD1	PHE	A	419	33.263	64.582	19.892	1.00	29.67	C
ATOM	6279	CE1	PHE	A	419	32.033	64.890	20.446	1.00	28.46	C
ATOM	6281	CZ	PHE	A	419	31.161	63.886	20.795	1.00	30.30	C
ATOM	6283	CE2	PHE	A	419	31.507	62.555	20.597	1.00	27.78	C
ATOM	6285	CD2	PHE	A	419	32.747	62.249	20.043	1.00	29.82	C
ATOM	6287	C	PHE	A	419	35.683	61.944	21.249	1.00	27.84	C
ATOM	6288	O	PHE	A	419	35.758	60.747	21.017	1.00	28.40	O
ATOM	6289	N	LYS	A	420	35.177	62.472	22.368	1.00	29.77	N
ATOM	6291	CA	LYS	A	420	34.848	61.690	23.560	1.00	31.11	C
ATOM	6293	CB	LYS	A	420	35.742	62.145	24.720	1.00	29.46	C
ATOM	6296	CG	LYS	A	420	35.498	61.367	26.028	1.00	31.46	C
ATOM	6299	CD	LYS	A	420	36.494	61.729	27.177	1.00	35.20	C
ATOM	6302	CE	LYS	A	420	36.609	63.241	27.404	1.00	31.92	C
ATOM	6305	NZ	LYS	A	420	37.603	63.606	28.422	1.00	30.13	N
ATOM	6309	C	LYS	A	420	33.359	61.817	23.936	1.00	32.09	C
ATOM	6310	O	LYS	A	420	32.917	62.816	24.484	1.00	34.76	O
ATOM	6311	N	LYS	A	421	32.581	60.794	23.644	1.00	35.54	N
ATOM	6313	CA	LYS	A	421	31.154	60.841	23.915	1.00	37.83	C
ATOM	6315	CB	LYS	A	421	30.432	59.617	23.306	1.00	38.33	C
ATOM	6318	CG	LYS	A	421	30.841	58.243	23.859	1.00	41.07	C
ATOM	6321	CD	LYS	A	421	30.128	57.101	23.111	1.00	42.68	C
ATOM	6324	CE	LYS	A	421	30.794	55.751	23.366	1.00	44.81	C
ATOM	6327	NZ	LYS	A	421	29.907	54.635	22.951	1.00	49.26	N
ATOM	6331	C	LYS	A	421	30.930	60.953	25.425	1.00	39.36	C
ATOM	6332	O	LYS	A	421	31.808	60.613	26.186	1.00	38.69	O
ATOM	6333	N	SER	A	422	29.784	61.497	25.843	1.00	41.86	N
ATOM	6335	CA	SER	A	422	29.310	61.339	27.219	1.00	35.58	C
ATOM	6337	CB	SER	A	422	29.507	62.594	28.015	1.00	33.47	C
ATOM	6340	OG	SER	A	422	28.997	62.366	29.302	1.00	25.94	O
ATOM	6342	C	SER	A	422	27.839	60.957	27.323	1.00	36.61	C
ATOM	6343	O	SER	A	422	26.994	61.517	26.641	1.00	31.10	O
ATOM	6344	N	LYS	A	423	27.538	60.008	28.201	1.00	37.65	N
ATOM	6346	CA	LYS	A	423	26.158	59.655	28.458	1.00	38.41	C
ATOM	6348	CB	LYS	A	423	26.076	58.288	29.143	1.00	40.86	C
ATOM	6351	CG	LYS	A	423	26.582	58.247	30.585	1.00	49.09	C
ATOM	6354	CD	LYS	A	423	26.963	56.790	31.028	1.00	53.42	C
ATOM	6357	CE	LYS	A	423	27.462	56.717	32.490	1.00	50.63	C
ATOM	6360	NZ	LYS	A	423	26.877	55.580	33.249	1.00	49.54	N
ATOM	6364	C	LYS	A	423	25.457	60.780	29.245	1.00	34.49	C
ATOM	6365	O	LYS	A	423	24.269	60.774	29.381	1.00	39.44	O
ATOM	6366	N	TYR	A	424	26.209	61.764	29.713	1.00	35.19	N
ATOM	6368	CA	TYR	A	424	25.676	62.957	30.360	1.00	34.02	C
ATOM	6370	CB	TYR	A	424	26.689	63.522	31.396	1.00	35.13	C
ATOM	6373	CG	TYR	A	424	26.903	62.690	32.657	1.00	39.36	C
ATOM	6374	CD1	TYR	A	424	26.475	63.153	33.912	1.00	39.65	C
ATOM	6376	CE1	TYR	A	424	26.662	62.403	35.047	1.00	37.04	C
ATOM	6378	CZ	TYR	A	424	27.294	61.183	34.949	1.00	36.54	C
ATOM	6379	OH	TYR	A	424	27.504	60.442	36.066	1.00	40.47	O
ATOM	6381	CE2	TYR	A	424	27.728	60.697	33.743	1.00	33.69	C
ATOM	6383	CD2	TYR	A	424	27.550	61.448	32.606	1.00	39.89	C
ATOM	6385	C	TYR	A	424	25.390	64.069	29.349	1.00	33.72	C
ATOM	6386	O	TYR	A	424	25.141	65.203	29.725	1.00	35.17	O
ATOM	6387	N	PHE	A	425	25.455	63.773	28.064	1.00	37.14	N
ATOM	6389	CA	PHE	A	425	25.080	64.742	27.033	1.00	33.22	C
ATOM	6391	CB	PHE	A	425	25.962	64.572	25.824	1.00	31.84	C
ATOM	6394	CG	PHE	A	425	25.710	65.572	24.750	1.00	28.43	C
ATOM	6395	CD1	PHE	A	425	26.135	66.879	24.900	1.00	21.74	C
ATOM	6397	CE1	PHE	A	425	25.905	67.803	23.892	1.00	23.69	C
ATOM	6399	CZ	PHE	A	425	25.258	67.426	22.732	1.00	18.66	C
ATOM	6401	CE2	PHE	A	425	24.843	66.140	22.575	1.00	20.26	C
ATOM	6403	CD2	PHE	A	425	25.063	65.207	23.588	1.00	20.98	C

341/514

Figure 5

ATOM	6405	C	PHE	A	425	23.635	64.513	26.635	1.00	32.15	C
ATOM	6406	O	PHE	A	425	23.371	63.678	25.791	1.00	32.47	O
ATOM	6407	N	MET	A	426	22.737	65.284	27.258	1.00	34.25	N
ATOM	6409	CA	MET	A	426	21.280	65.167	27.158	1.00	35.24	C
ATOM	6411	CB	MET	A	426	20.722	64.683	28.510	1.00	36.55	C
ATOM	6414	CG	MET	A	426	20.627	63.201	28.609	1.00	40.24	C
ATOM	6417	SD	MET	A	426	20.114	62.717	30.216	1.00	39.19	S
ATOM	6418	CE	MET	A	426	20.341	60.993	30.003	1.00	43.28	C
ATOM	6422	C	MET	A	426	20.561	66.488	26.863	1.00	33.80	C
ATOM	6423	O	MET	A	426	19.505	66.724	27.412	1.00	33.82	O
ATOM	6424	N	PRO	A	427	21.077	67.354	26.012	1.00	31.10	N
ATOM	6425	CA	PRO	A	427	20.392	68.627	25.787	1.00	29.75	C
ATOM	6427	CB	PRO	A	427	21.415	69.427	24.991	1.00	29.66	C
ATOM	6430	CG	PRO	A	427	22.199	68.378	24.267	1.00	30.92	C
ATOM	6433	CD	PRO	A	427	22.271	67.199	25.161	1.00	30.58	C
ATOM	6436	C	PRO	A	427	19.074	68.436	25.009	1.00	31.10	C
ATOM	6437	O	PRO	A	427	18.261	69.353	24.935	1.00	33.29	O
ATOM	6438	N	PHE	A	428	18.902	67.246	24.440	1.00	31.39	N
ATOM	6440	CA	PHE	A	428	17.708	66.836	23.709	1.00	32.83	C
ATOM	6442	CB	PHE	A	428	18.093	66.067	22.413	1.00	27.16	C
ATOM	6445	CG	PHE	A	428	18.851	66.877	21.419	1.00	25.33	C
ATOM	6446	CD1	PHE	A	428	20.218	66.723	21.275	1.00	23.87	C
ATOM	6448	CE1	PHE	A	428	20.930	67.473	20.341	1.00	24.51	C
ATOM	6450	CZ	PHE	A	428	20.295	68.385	19.540	1.00	18.58	C
ATOM	6452	CE2	PHE	A	428	18.934	68.554	19.659	1.00	27.53	C
ATOM	6454	CD2	PHE	A	428	18.203	67.798	20.607	1.00	24.66	C
ATOM	6456	C	PHE	A	428	16.871	65.906	24.596	1.00	35.09	C
ATOM	6457	O	PHE	A	428	15.941	65.222	24.114	1.00	29.81	O
ATOM	6458	N	SER	A	429	17.223	65.866	25.880	1.00	36.16	N
ATOM	6460	CA	SER	A	429	16.616	64.941	26.836	1.00	37.41	C
ATOM	6462	CB	SER	A	429	15.108	65.187	26.902	1.00	37.00	C
ATOM	6465	OG	SER	A	429	14.503	64.468	27.940	1.00	31.98	O
ATOM	6467	C	SER	A	429	16.943	63.476	26.491	1.00	38.31	C
ATOM	6468	O	SER	A	429	17.994	63.193	25.908	1.00	39.02	O
ATOM	6469	N	ALA	A	430	16.050	62.554	26.843	1.00	38.13	N
ATOM	6471	CA	ALA	A	430	16.367	61.139	26.779	1.00	40.62	C
ATOM	6473	CB	ALA	A	430	17.406	60.795	27.835	1.00	41.45	C
ATOM	6477	C	ALA	A	430	15.133	60.257	26.961	1.00	42.09	C
ATOM	6478	O	ALA	A	430	14.131	60.655	27.565	1.00	46.80	O
ATOM	6479	N	GLY	A	431	15.209	59.052	26.431	1.00	38.35	N
ATOM	6481	CA	GLY	A	431	14.106	58.141	26.544	1.00	40.00	C
ATOM	6484	C	GLY	A	431	13.077	58.364	25.474	1.00	39.41	C
ATOM	6485	O	GLY	A	431	13.366	58.924	24.430	1.00	36.19	O
ATOM	6486	N	LYS	A	432	11.863	57.921	25.763	1.00	41.85	N
ATOM	6488	CA	LYS	A	432	10.774	57.894	24.783	1.00	45.85	C
ATOM	6490	CB	LYS	A	432	9.631	57.038	25.335	1.00	46.86	C
ATOM	6493	CG	LYS	A	432	10.070	55.577	25.555	1.00	50.87	C
ATOM	6496	CD	LYS	A	432	8.908	54.602	25.531	1.00	55.57	C
ATOM	6499	CE	LYS	A	432	9.376	53.154	25.566	1.00	55.94	C
ATOM	6502	NZ	LYS	A	432	8.676	52.407	24.486	1.00	58.23	N
ATOM	6506	C	LYS	A	432	10.234	59.242	24.253	1.00	44.49	C
ATOM	6507	O	LYS	A	432	9.545	59.253	23.243	1.00	45.46	O
ATOM	6508	N	ARG	A	433	10.569	60.353	24.901	1.00	44.97	N
ATOM	6510	CA	ARG	A	433	10.121	61.683	24.481	1.00	45.26	C
ATOM	6512	CB	ARG	A	433	9.511	62.436	25.670	1.00	48.71	C
ATOM	6515	CG	ARG	A	433	8.052	62.144	25.932	1.00	51.05	C
ATOM	6518	CD	ARG	A	433	7.070	63.211	25.400	1.00	52.16	C
ATOM	6521	NE	ARG	A	433	5.714	62.712	25.557	1.00	48.84	N
ATOM	6523	CZ	ARG	A	433	4.658	63.140	24.909	1.00	48.99	C
ATOM	6524	NH1	ARG	A	433	4.722	64.155	24.053	1.00	47.24	N
ATOM	6527	NH2	ARG	A	433	3.503	62.546	25.159	1.00	54.96	N
ATOM	6530	C	ARG	A	433	11.279	62.509	23.959	1.00	45.61	C
ATOM	6531	O	ARG	A	433	11.159	63.720	23.815	1.00	47.89	O
ATOM	6532	N	ILE	A	434	12.412	61.868	23.696	1.00	43.96	N
ATOM	6534	CA	ILE	A	434	13.587	62.579	23.211	1.00	41.08	C
ATOM	6536	CB	ILE	A	434	14.751	61.574	22.937	1.00	44.08	C
ATOM	6538	CG1	ILE	A	434	16.079	62.309	22.784	1.00	45.79	C
ATOM	6541	CD1	ILE	A	434	17.240	61.392	22.640	1.00	45.51	C
ATOM	6545	CG2	ILE	A	434	14.481	60.724	21.710	1.00	43.33	C
ATOM	6549	C	ILE	A	434	13.244	63.421	21.974	1.00	37.04	C
ATOM	6550	O	ILE	A	434	12.451	63.027	21.143	1.00	39.52	O
ATOM	6551	N	CYS	A	435	13.814	64.604	21.878	1.00	32.99	N
ATOM	6553	CA	CYS	A	435	13.581	65.469	20.732	1.00	33.44	C
ATOM	6555	CB	CYS	A	435	14.727	66.446	20.598	1.00	33.70	C
ATOM	6558	SG	CYS	A	435	14.569	67.657	19.289	1.00	33.40	S
ATOM	6559	C	CYS	A	435	13.457	64.701	19.436	1.00	34.60	C

342/514

Figure 5

ATOM	6560	O	CYS	A	435	14.324	63.918	19.085	1.00	41.27	O
ATOM	6561	N	VAL	A	436	12.386	64.966	18.709	1.00	35.97	N
ATOM	6563	CA	VAL	A	436	12.113	64.313	17.440	1.00	35.15	C
ATOM	6565	CB	VAL	A	436	10.628	64.596	17.053	1.00	36.18	C
ATOM	6567	CG1	VAL	A	436	10.348	64.444	15.608	1.00	37.68	C
ATOM	6571	CG2	VAL	A	436	9.729	63.668	17.817	1.00	37.95	C
ATOM	6575	C	VAL	A	436	13.139	64.772	16.394	1.00	35.49	C
ATOM	6576	O	VAL	A	436	13.406	64.071	15.403	1.00	37.18	O
ATOM	6577	N	GLY	A	437	13.739	65.930	16.638	1.00	32.32	N
ATOM	6579	CA	GLY	A	437	14.695	66.493	15.714	1.00	32.02	C
ATOM	6582	C	GLY	A	437	16.148	66.447	16.112	1.00	30.69	C
ATOM	6583	O	GLY	A	437	16.935	67.287	15.681	1.00	30.06	O
ATOM	6584	N	GLU	A	438	16.525	65.474	16.921	1.00	32.23	N
ATOM	6586	CA	GLU	A	438	17.906	65.366	17.373	1.00	30.35	C
ATOM	6588	CB	GLU	A	438	18.086	64.069	18.147	1.00	33.34	C
ATOM	6591	CG	GLU	A	438	19.327	64.011	19.018	1.00	37.16	C
ATOM	6594	CD	GLU	A	438	19.497	62.667	19.724	1.00	41.67	C
ATOM	6595	OE1	GLU	A	438	20.432	62.573	20.575	1.00	43.82	O
ATOM	6596	OE2	GLU	A	438	18.696	61.715	19.452	1.00	40.54	O
ATOM	6597	C	GLU	A	438	18.849	65.402	16.173	1.00	34.52	C
ATOM	6598	O	GLU	A	438	19.738	66.271	16.068	1.00	34.74	O
ATOM	6599	N	ALA	A	439	18.633	64.475	15.244	1.00	33.78	N
ATOM	6601	CA	ALA	A	439	19.488	64.380	14.065	1.00	30.60	C
ATOM	6603	CB	ALA	A	439	19.092	63.202	13.227	1.00	29.59	C
ATOM	6607	C	ALA	A	439	19.459	65.650	13.238	1.00	27.90	C
ATOM	6608	O	ALA	A	439	20.495	66.119	12.771	1.00	33.40	O
ATOM	6609	N	LEU	A	440	18.283	66.218	13.060	1.00	28.70	N
ATOM	6611	CA	LEU	A	440	18.141	67.378	12.185	1.00	31.96	C
ATOM	6613	CB	LEU	A	440	16.667	67.735	12.036	1.00	35.75	C
ATOM	6616	CG	LEU	A	440	16.360	69.006	11.242	1.00	38.50	C
ATOM	6618	CD1	LEU	A	440	17.056	68.978	9.927	1.00	39.16	C
ATOM	6622	CD2	LEU	A	440	14.857	69.129	11.039	1.00	41.40	C
ATOM	6626	C	LEU	A	440	18.918	68.563	12.735	1.00	29.39	C
ATOM	6627	O	LEU	A	440	19.672	69.213	12.039	1.00	29.69	O
ATOM	6628	N	ALA	A	441	18.714	68.822	14.006	1.00	28.50	N
ATOM	6630	CA	ALA	A	441	19.480	69.806	14.737	1.00	29.61	C
ATOM	6632	CB	ALA	A	441	19.004	69.807	16.192	1.00	31.64	C
ATOM	6636	C	ALA	A	441	21.001	69.578	14.683	1.00	29.34	C
ATOM	6637	O	ALA	A	441	21.773	70.518	14.579	1.00	27.63	O
ATOM	6638	N	GLY	A	442	21.444	68.336	14.792	1.00	30.20	N
ATOM	6640	CA	GLY	A	442	22.863	68.049	14.654	1.00	30.81	C
ATOM	6643	C	GLY	A	442	23.336	68.466	13.281	1.00	31.14	C
ATOM	6644	O	GLY	A	442	24.367	69.098	13.169	1.00	33.60	O
ATOM	6645	N	MET	A	443	22.569	68.143	12.241	1.00	31.76	N
ATOM	6647	CA	MET	A	443	22.917	68.560	10.893	1.00	30.44	C
ATOM	6649	CB	MET	A	443	21.922	68.036	9.867	1.00	33.85	C
ATOM	6652	CG	MET	A	443	21.915	66.529	9.703	1.00	34.09	C
ATOM	6655	SD	MET	A	443	21.098	66.052	8.180	1.00	40.71	S
ATOM	6656	CE	MET	A	443	20.344	64.423	8.773	1.00	46.61	C
ATOM	6660	C	MET	A	443	22.953	70.058	10.778	1.00	31.49	C
ATOM	6661	O	MET	A	443	23.846	70.601	10.153	1.00	31.80	O
ATOM	6662	N	GLU	A	444	21.993	70.750	11.368	1.00	31.77	N
ATOM	6664	CA	GLU	A	444	21.927	72.189	11.159	1.00	31.06	C
ATOM	6666	CB	GLU	A	444	20.628	72.768	11.665	1.00	32.92	C
ATOM	6669	CG	GLU	A	444	19.418	72.292	10.901	1.00	37.84	C
ATOM	6672	CD	GLU	A	444	18.180	73.031	11.338	1.00	42.20	C
ATOM	6673	OE1	GLU	A	444	18.178	74.273	11.212	1.00	48.38	O
ATOM	6674	OE2	GLU	A	444	17.235	72.390	11.827	1.00	43.20	O
ATOM	6675	C	GLU	A	444	23.078	72.878	11.841	1.00	28.05	C
ATOM	6676	O	GLU	A	444	23.698	73.795	11.273	1.00	24.94	O
ATOM	6677	N	LEU	A	445	23.369	72.436	13.057	1.00	23.88	N
ATOM	6679	CA	LEU	A	445	24.407	73.082	13.851	1.00	23.07	C
ATOM	6681	CB	LEU	A	445	24.433	72.502	15.251	1.00	21.11	C
ATOM	6684	CG	LEU	A	445	23.211	72.946	16.039	1.00	21.47	C
ATOM	6686	CD1	LEU	A	445	23.075	72.136	17.327	1.00	17.30	C
ATOM	6690	CD2	LEU	A	445	23.240	74.482	16.304	1.00	19.21	C
ATOM	6694	C	LEU	A	445	25.749	72.876	13.189	1.00	27.27	C
ATOM	6695	O	LEU	A	445	26.493	73.839	12.946	1.00	28.54	O
ATOM	6696	N	PHE	A	446	26.036	71.614	12.873	1.00	27.35	N
ATOM	6698	CA	PHE	A	446	27.298	71.239	12.241	1.00	32.64	C
ATOM	6700	CB	PHE	A	446	27.399	69.713	12.098	1.00	33.69	C
ATOM	6703	CG	PHE	A	446	28.665	69.276	11.454	1.00	38.12	C
ATOM	6704	CD1	PHE	A	446	28.689	68.884	10.132	1.00	42.68	C
ATOM	6706	CE1	PHE	A	446	29.896	68.497	9.534	1.00	44.33	C
ATOM	6708	CZ	PHE	A	446	31.066	68.519	10.257	1.00	41.55	C
ATOM	6710	CE2	PHE	A	446	31.041	68.906	11.570	1.00	42.78	C

Figure 5

ATOM	6712	CD2	PHE	A	446	29.849	69.291	12.163	1.00	38.44	C
ATOM	6714	C	PHE	A	446	27.516	71.934	10.869	1.00	28.85	C
ATOM	6715	O	PHE	A	446	28.557	72.550	10.629	1.00	26.64	O
ATOM	6716	N	LEU	A	447	26.511	71.865	10.003	1.00	26.75	N
ATOM	6718	CA	LEU	A	447	26.618	72.404	8.646	1.00	25.60	C
ATOM	6720	CB	LEU	A	447	25.588	71.750	7.718	1.00	24.02	C
ATOM	6723	CG	LEU	A	447	25.711	70.229	7.637	1.00	29.23	C
ATOM	6725	CD1	LEU	A	447	24.538	69.622	6.884	1.00	30.23	C
ATOM	6729	CD2	LEU	A	447	27.040	69.836	6.977	1.00	32.39	C
ATOM	6733	C	LEU	A	447	26.524	73.933	8.572	1.00	24.66	C
ATOM	6734	O	LEU	A	447	27.193	74.520	7.743	1.00	25.52	O
ATOM	6735	N	PHE	A	448	25.726	74.584	9.422	1.00	26.91	N
ATOM	6737	CA	PHE	A	448	25.689	76.057	9.415	1.00	29.36	C
ATOM	6739	CB	PHE	A	448	24.458	76.637	10.128	1.00	30.61	C
ATOM	6742	CG	PHE	A	448	23.129	76.250	9.533	1.00	26.90	C
ATOM	6743	CD1	PHE	A	448	23.022	75.566	8.351	1.00	30.26	C
ATOM	6745	CE1	PHE	A	448	21.769	75.223	7.843	1.00	35.27	C
ATOM	6747	CZ	PHE	A	448	20.625	75.582	8.517	1.00	32.60	C
ATOM	6749	CE2	PHE	A	448	20.730	76.264	9.692	1.00	28.39	C
ATOM	6751	CD2	PHE	A	448	21.971	76.602	10.189	1.00	24.92	C
ATOM	6753	C	PHE	A	448	26.924	76.660	10.088	1.00	32.33	C
ATOM	6754	O	PHE	A	448	27.406	77.704	9.661	1.00	39.14	O
ATOM	6755	N	LEU	A	449	27.426	76.040	11.151	1.00	30.79	N
ATOM	6757	CA	LEU	A	449	28.588	76.595	11.837	1.00	30.90	C
ATOM	6759	CB	LEU	A	449	28.768	75.961	13.229	1.00	31.56	C
ATOM	6762	CG	LEU	A	449	27.741	76.394	14.285	1.00	35.96	C
ATOM	6764	CD1	LEU	A	449	28.048	75.723	15.583	1.00	34.66	C
ATOM	6768	CD2	LEU	A	449	27.664	77.932	14.491	1.00	37.25	C
ATOM	6772	C	LEU	A	449	29.855	76.444	10.969	1.00	29.88	C
ATOM	6773	O	LEU	A	449	30.603	77.411	10.788	1.00	21.51	O
ATOM	6774	N	THR	A	450	30.076	75.244	10.420	1.00	29.18	N
ATOM	6776	CA	THR	A	450	31.265	74.998	9.587	1.00	29.64	C
ATOM	6778	CB	THR	A	450	31.421	73.519	9.186	1.00	30.36	C
ATOM	6780	OG1	THR	A	450	30.180	72.986	8.699	1.00	34.16	O
ATOM	6782	CG2	THR	A	450	31.726	72.655	10.413	1.00	31.55	C
ATOM	6786	C	THR	A	450	31.195	75.850	8.355	1.00	28.81	C
ATOM	6787	O	THR	A	450	32.200	76.429	7.964	1.00	32.21	O
ATOM	6788	N	SER	A	451	29.999	75.959	7.771	1.00	28.40	N
ATOM	6790	CA	SER	A	451	29.786	76.827	6.615	1.00	27.47	C
ATOM	6792	CB	SER	A	451	28.373	76.676	6.022	1.00	27.93	C
ATOM	6795	OG	SER	A	451	28.189	75.381	5.421	1.00	23.37	O
ATOM	6797	C	SER	A	451	30.124	78.281	6.937	1.00	29.16	C
ATOM	6798	O	SER	A	451	30.802	78.935	6.157	1.00	32.94	O
ATOM	6799	N	ILE	A	452	29.708	78.784	8.094	1.00	30.00	N
ATOM	6801	CA	ILE	A	452	30.029	80.152	8.459	1.00	29.35	C
ATOM	6803	CB	ILE	A	452	29.287	80.566	9.734	1.00	32.21	C
ATOM	6805	CG1	ILE	A	452	27.784	80.697	9.469	1.00	31.56	C
ATOM	6808	CD1	ILE	A	452	26.955	80.922	10.723	1.00	30.73	C
ATOM	6812	CG2	ILE	A	452	29.883	81.897	10.326	1.00	28.30	C
ATOM	6816	C	ILE	A	452	31.536	80.345	8.666	1.00	33.41	C
ATOM	6817	O	ILE	A	452	32.108	81.337	8.224	1.00	35.69	O
ATOM	6818	N	LEU	A	453	32.187	79.420	9.356	1.00	35.56	N
ATOM	6820	CA	LEU	A	453	33.603	79.614	9.690	1.00	35.66	C
ATOM	6822	CB	LEU	A	453	33.990	78.786	10.902	1.00	34.89	C
ATOM	6825	CG	LEU	A	453	33.335	79.311	12.170	1.00	36.20	C
ATOM	6827	CD1	LEU	A	453	33.499	78.292	13.258	1.00	38.84	C
ATOM	6831	CD2	LEU	A	453	33.936	80.646	12.578	1.00	36.79	C
ATOM	6835	C	LEU	A	453	34.517	79.312	8.508	1.00	33.89	C
ATOM	6836	O	LEU	A	453	35.628	79.822	8.425	1.00	33.21	O
ATOM	6837	N	GLN	A	454	34.034	78.507	7.581	1.00	32.49	N
ATOM	6839	CA	GLN	A	454	34.745	78.313	6.326	1.00	35.68	C
ATOM	6841	CB	GLN	A	454	34.046	77.252	5.501	1.00	35.01	C
ATOM	6844	CG	GLN	A	454	34.571	77.127	4.103	1.00	33.32	C
ATOM	6847	CD	GLN	A	454	33.744	76.183	3.287	1.00	34.79	C
ATOM	6848	OE1	GLN	A	454	34.281	75.272	2.663	1.00	37.72	O
ATOM	6849	NE2	GLN	A	454	32.423	76.388	3.285	1.00	37.41	N
ATOM	6852	C	GLN	A	454	34.808	79.589	5.501	1.00	36.08	C
ATOM	6853	O	GLN	A	454	35.740	79.788	4.744	1.00	38.92	O
ATOM	6854	N	ASN	A	455	33.799	80.443	5.638	1.00	40.14	N
ATOM	6856	CA	ASN	A	455	33.636	81.577	4.745	1.00	36.76	C
ATOM	6858	CB	ASN	A	455	32.214	81.569	4.193	1.00	36.92	C
ATOM	6861	CG	ASN	A	455	32.004	80.487	3.126	1.00	32.82	C
ATOM	6862	OD1	ASN	A	455	32.269	80.700	1.954	1.00	35.94	O
ATOM	6863	ND2	ASN	A	455	31.522	79.339	3.537	1.00	31.89	N
ATOM	6866	C	ASN	A	455	33.970	82.910	5.388	1.00	39.09	C
ATOM	6867	O	ASN	A	455	34.328	83.863	4.692	1.00	41.52	O

344/514

Figure 5

ATOM	6868	N	PHE	A	456	33.891	82.977	6.716	1.00	39.63	N
ATOM	6870	CA	PHE	A	456	34.128	84.224	7.439	1.00	38.25	C
ATOM	6872	CB	PHE	A	456	32.800	84.868	7.899	1.00	40.01	C
ATOM	6875	CG	PHE	A	456	31.754	84.956	6.829	1.00	42.03	C
ATOM	6876	CD1	PHE	A	456	31.796	85.985	5.882	1.00	47.21	C
ATOM	6878	CE1	PHE	A	456	30.834	86.081	4.873	1.00	44.83	C
ATOM	6880	CZ	PHE	A	456	29.821	85.151	4.796	1.00	44.21	C
ATOM	6882	CE2	PHE	A	456	29.764	84.114	5.735	1.00	46.15	C
ATOM	6884	CD2	PHE	A	456	30.734	84.024	6.753	1.00	40.54	C
ATOM	6886	C	PHE	A	456	34.961	84.003	8.680	1.00	39.26	C
ATOM	6887	O	PHE	A	456	34.983	82.906	9.263	1.00	40.35	O
ATOM	6888	N	ASN	A	457	35.618	85.078	9.088	1.00	40.92	N
ATOM	6890	CA	ASN	A	457	36.161	85.231	10.417	1.00	42.55	C
ATOM	6892	CB	ASN	A	457	37.598	85.768	10.346	1.00	42.31	C
ATOM	6895	CG	ASN	A	457	38.534	84.836	9.581	1.00	43.03	C
ATOM	6896	OD1	ASN	A	457	38.719	83.688	9.950	1.00	46.04	O
ATOM	6897	ND2	ASN	A	457	39.113	85.334	8.503	1.00	48.03	N
ATOM	6900	C	ASN	A	457	35.235	86.187	11.167	1.00	43.50	C
ATOM	6901	O	ASN	A	457	34.740	87.148	10.604	1.00	48.36	O
ATOM	6902	N	LEU	A	458	34.992	85.918	12.437	1.00	44.29	N
ATOM	6904	CA	LEU	A	458	34.040	86.692	13.210	1.00	45.69	C
ATOM	6906	CB	LEU	A	458	33.314	85.778	14.205	1.00	45.14	C
ATOM	6909	CG	LEU	A	458	32.880	84.427	13.622	1.00	45.29	C
ATOM	6911	CD1	LEU	A	458	32.189	83.592	14.664	1.00	46.58	C
ATOM	6915	CD2	LEU	A	458	31.997	84.626	12.393	1.00	43.66	C
ATOM	6919	C	LEU	A	458	34.801	87.775	13.933	1.00	46.09	C
ATOM	6920	O	LEU	A	458	35.691	87.480	14.697	1.00	50.98	O
ATOM	6921	N	LYS	A	459	34.484	89.031	13.676	1.00	51.67	N
ATOM	6923	CA	LYS	A	459	35.117	90.110	14.407	1.00	55.62	C
ATOM	6925	CB	LYS	A	459	35.668	91.178	13.477	1.00	60.15	C
ATOM	6928	CG	LYS	A	459	36.506	92.218	14.223	1.00	67.14	C
ATOM	6931	CD	LYS	A	459	37.433	93.010	13.293	1.00	73.38	C
ATOM	6934	CE	LYS	A	459	37.681	94.449	13.797	1.00	74.99	C
ATOM	6937	NZ	LYS	A	459	36.459	95.308	13.719	1.00	74.17	N
ATOM	6941	C	LYS	A	459	34.164	90.723	15.416	1.00	56.14	C
ATOM	6942	O	LYS	A	459	33.029	91.092	15.107	1.00	49.31	O
ATOM	6943	N	SER	A	460	34.658	90.794	16.644	1.00	61.96	N
ATOM	6945	CA	SER	A	460	33.954	91.424	17.744	1.00	66.78	C
ATOM	6947	CB	SER	A	460	34.491	90.904	19.076	1.00	66.96	C
ATOM	6950	OG	SER	A	460	34.027	91.677	20.162	1.00	68.53	O
ATOM	6952	C	SER	A	460	34.212	92.903	17.633	1.00	69.99	C
ATOM	6953	O	SER	A	460	35.223	93.317	17.059	1.00	69.84	O
ATOM	6954	N	LEU	A	461	33.291	93.699	18.163	1.00	76.52	N
ATOM	6956	CA	LEU	A	461	33.501	95.146	18.259	1.00	79.14	C
ATOM	6958	CB	LEU	A	461	32.351	95.950	17.612	1.00	79.38	C
ATOM	6961	CG	LEU	A	461	30.937	95.377	17.443	1.00	78.91	C
ATOM	6963	CD1	LEU	A	461	29.916	96.518	17.257	1.00	78.86	C
ATOM	6967	CD2	LEU	A	461	30.861	94.400	16.272	1.00	77.63	C
ATOM	6971	C	LEU	A	461	33.763	95.588	19.707	1.00	80.78	C
ATOM	6972	O	LEU	A	461	34.357	96.638	19.923	1.00	80.13	O
ATOM	6973	N	VAL	A	462	33.350	94.785	20.689	1.00	84.24	N
ATOM	6975	CA	VAL	A	462	33.566	95.114	22.107	1.00	86.40	C
ATOM	6977	CB	VAL	A	462	32.233	94.937	22.948	1.00	86.21	C
ATOM	6979	CG1	VAL	A	462	32.137	93.562	23.597	1.00	86.36	C
ATOM	6983	CG2	VAL	A	462	32.075	96.046	24.008	1.00	86.59	C
ATOM	6987	C	VAL	A	462	34.760	94.370	22.751	1.00	86.45	C
ATOM	6988	O	VAL	A	462	34.886	94.360	23.976	1.00	87.74	O
ATOM	6989	N	ASP	A	463	35.633	93.772	21.936	1.00	87.28	N
ATOM	6991	CA	ASP	A	463	36.879	93.152	22.419	1.00	89.60	C
ATOM	6993	CB	ASP	A	463	37.767	94.232	23.103	1.00	92.06	C
ATOM	6996	CG	ASP	A	463	38.848	93.655	24.041	1.00	96.29	C
ATOM	6997	OD1	ASP	A	463	39.647	92.778	23.622	1.00	97.17	O
ATOM	6998	OD2	ASP	A	463	38.989	94.063	25.221	1.00	98.16	O
ATOM	6999	C	ASP	A	463	36.623	91.904	23.315	1.00	89.34	C
ATOM	7000	O	ASP	A	463	36.071	92.032	24.413	1.00	85.97	O
ATOM	7001	N	PRO	A	464	37.027	90.709	22.850	1.00	90.54	N
ATOM	7002	CA	PRO	A	464	36.751	89.443	23.562	1.00	90.71	C
ATOM	7004	CB	PRO	A	464	37.867	88.492	23.064	1.00	91.07	C
ATOM	7007	CG	PRO	A	464	38.455	89.130	21.815	1.00	90.77	C
ATOM	7010	CD	PRO	A	464	37.782	90.467	21.604	1.00	90.56	C
ATOM	7013	C	PRO	A	464	36.785	89.505	25.094	1.00	89.59	C
ATOM	7014	O	PRO	A	464	35.806	89.136	25.744	1.00	88.48	O
ATOM	7015	N	LYS	A	465	37.905	89.974	25.638	1.00	89.25	N
ATOM	7017	CA	LYS	A	465	38.188	89.929	27.077	1.00	89.10	C
ATOM	7019	CB	LYS	A	465	39.446	90.770	27.394	1.00	89.70	C
ATOM	7022	CG	LYS	A	465	40.711	89.939	27.622	1.00	90.21	C

345/514

Figure 5

ATOM	7025	CD	LYS	A	465	40.675	89.220	28.986	1.00	91.31	C
ATOM	7028	CE	LYS	A	465	41.765	89.718	29.951	1.00	91.65	C
ATOM	7031	NZ	LYS	A	465	41.218	90.050	31.299	1.00	90.47	N
ATOM	7035	C	LYS	A	465	37.011	90.375	27.958	1.00	87.10	C
ATOM	7036	O	LYS	A	465	36.650	89.682	28.914	1.00	86.20	O
ATOM	7037	N	ASN	A	466	36.431	91.527	27.624	1.00	85.29	N
ATOM	7039	CA	ASN	A	466	35.319	92.108	28.389	1.00	85.85	C
ATOM	7041	CB	ASN	A	466	34.956	93.508	27.859	1.00	85.58	C
ATOM	7044	CG	ASN	A	466	35.709	94.619	28.569	1.00	86.77	C
ATOM	7045	OD1	ASN	A	466	35.317	95.062	29.650	1.00	85.97	O
ATOM	7046	ND2	ASN	A	466	36.794	95.081	27.959	1.00	84.71	N
ATOM	7049	C	ASN	A	466	34.047	91.258	28.369	1.00	85.90	C
ATOM	7050	O	ASN	A	466	33.630	90.734	29.416	1.00	87.70	O
ATOM	7051	N	LEU	A	467	33.470	91.118	27.166	1.00	82.33	N
ATOM	7053	CA	LEU	A	467	32.081	90.685	26.960	1.00	77.52	C
ATOM	7055	CB	LEU	A	467	31.784	90.505	25.471	1.00	78.17	C
ATOM	7058	CG	LEU	A	467	32.472	89.369	24.708	1.00	77.97	C
ATOM	7060	CD1	LEU	A	467	31.444	88.351	24.284	1.00	77.42	C
ATOM	7064	CD2	LEU	A	467	33.240	89.867	23.484	1.00	78.39	C
ATOM	7068	C	LEU	A	467	31.679	89.433	27.715	1.00	74.81	C
ATOM	7069	O	LEU	A	467	32.443	88.476	27.806	1.00	72.16	O
ATOM	7070	N	ASP	A	468	30.461	89.470	28.251	1.00	73.68	N
ATOM	7072	CA	ASP	A	468	29.962	88.464	29.191	1.00	71.69	C
ATOM	7074	CB	ASP	A	468	29.144	89.167	30.303	1.00	74.84	C
ATOM	7077	CG	ASP	A	468	28.040	88.289	30.896	1.00	79.92	C
ATOM	7078	OD1	ASP	A	468	26.916	88.246	30.322	1.00	85.20	O
ATOM	7079	OD2	ASP	A	468	28.198	87.623	31.943	1.00	78.66	O
ATOM	7080	C	ASP	A	468	29.139	87.441	28.403	1.00	66.07	C
ATOM	7081	O	ASP	A	468	28.405	87.815	27.489	1.00	60.31	O
ATOM	7082	N	THR	A	469	29.286	86.156	28.723	1.00	60.15	N
ATOM	7084	CA	THR	A	469	28.559	85.118	27.999	1.00	57.23	C
ATOM	7086	CB	THR	A	469	29.537	84.160	27.295	1.00	56.63	C
ATOM	7088	OG1	THR	A	469	30.201	83.308	28.247	1.00	58.20	O
ATOM	7090	CG2	THR	A	469	30.635	84.932	26.619	1.00	54.10	C
ATOM	7094	C	THR	A	469	27.609	84.349	28.896	1.00	57.92	C
ATOM	7095	O	THR	A	469	27.100	83.288	28.523	1.00	55.49	O
ATOM	7096	N	THR	A	470	27.348	84.904	30.071	1.00	61.06	N
ATOM	7098	CA	THR	A	470	26.544	84.224	31.074	1.00	62.76	C
ATOM	7100	CB	THR	A	470	26.725	84.864	32.462	1.00	65.11	C
ATOM	7102	OG1	THR	A	470	28.113	85.178	32.667	1.00	64.29	O
ATOM	7104	CG2	THR	A	470	26.373	83.852	33.581	1.00	65.42	C
ATOM	7108	C	THR	A	470	25.094	84.292	30.641	1.00	60.54	C
ATOM	7109	O	THR	A	470	24.593	85.367	30.317	1.00	58.76	O
ATOM	7110	N	PRO	A	471	24.439	83.138	30.587	1.00	60.80	N
ATOM	7111	CA	PRO	A	471	23.038	83.075	30.177	1.00	60.54	C
ATOM	7113	CB	PRO	A	471	22.638	81.637	30.532	1.00	61.06	C
ATOM	7116	CG	PRO	A	471	23.917	80.839	30.480	1.00	61.03	C
ATOM	7119	CD	PRO	A	471	25.006	81.798	30.845	1.00	60.75	C
ATOM	7122	C	PRO	A	471	22.162	84.072	30.919	1.00	63.07	C
ATOM	7123	O	PRO	A	471	22.372	84.273	32.104	1.00	65.31	O
ATOM	7124	N	VAL	A	472	21.240	84.714	30.206	1.00	65.18	N
ATOM	7126	CA	VAL	A	472	20.078	85.388	30.791	1.00	66.96	C
ATOM	7128	CB	VAL	A	472	19.671	86.626	29.922	1.00	67.05	C
ATOM	7130	CG1	VAL	A	472	18.260	87.128	30.248	1.00	66.24	C
ATOM	7134	CG2	VAL	A	472	20.695	87.743	30.069	1.00	65.54	C
ATOM	7138	C	VAL	A	472	18.906	84.367	30.923	1.00	69.45	C
ATOM	7139	O	VAL	A	472	18.329	83.934	29.926	1.00	67.70	O
ATOM	7140	N	VAL	A	473	18.565	84.008	32.161	1.00	73.44	N
ATOM	7142	CA	VAL	A	473	17.591	82.949	32.451	1.00	76.49	C
ATOM	7144	CB	VAL	A	473	18.159	81.919	33.470	1.00	77.80	C
ATOM	7146	CG1	VAL	A	473	17.227	80.682	33.576	1.00	80.88	C
ATOM	7150	CG2	VAL	A	473	19.581	81.511	33.105	1.00	74.90	C
ATOM	7154	C	VAL	A	473	16.324	83.507	33.077	1.00	77.30	C
ATOM	7155	O	VAL	A	473	16.393	84.281	34.030	1.00	79.82	O
ATOM	7156	N	ASN	A	474	15.170	83.085	32.564	1.00	77.27	N
ATOM	7158	CA	ASN	A	474	13.875	83.483	33.126	1.00	75.32	C
ATOM	7160	CB	ASN	A	474	13.293	84.693	32.368	1.00	76.46	C
ATOM	7163	CG	ASN	A	474	14.032	86.015	32.677	1.00	77.44	C
ATOM	7164	OD1	ASN	A	474	14.809	86.507	31.864	1.00	80.54	O
ATOM	7165	ND2	ASN	A	474	13.777	86.589	33.845	1.00	77.74	N
ATOM	7168	C	ASN	A	474	12.923	82.277	33.090	1.00	72.50	C
ATOM	7169	O	ASN	A	474	12.358	81.947	32.044	1.00	69.97	O
ATOM	7170	N	GLY	A	475	12.784	81.607	34.234	1.00	72.55	N
ATOM	7172	CA	GLY	A	475	11.969	80.403	34.348	1.00	72.40	C
ATOM	7175	C	GLY	A	475	12.686	79.150	33.859	1.00	72.20	C
ATOM	7176	O	GLY	A	475	13.675	78.734	34.479	1.00	70.60	O

346/514

Figure 5

ATOM	7177	N	PHE	A	476	12.184	78.559	32.763	1.00	71.91	N
ATOM	7179	CA	PHE	A	476	12.829	77.423	32.084	1.00	71.98	C
ATOM	7181	CB	PHE	A	476	11.850	76.258	31.865	1.00	73.64	C
ATOM	7184	CG	PHE	A	476	10.934	75.968	33.021	1.00	75.92	C
ATOM	7185	CD1	PHE	A	476	9.585	75.695	32.777	1.00	78.30	C
ATOM	7187	CE1	PHE	A	476	8.723	75.402	33.813	1.00	76.18	C
ATOM	7189	CZ	PHE	A	476	9.202	75.365	35.115	1.00	75.78	C
ATOM	7191	CE2	PHE	A	476	10.534	75.618	35.372	1.00	73.70	C
ATOM	7193	CD2	PHE	A	476	11.405	75.909	34.329	1.00	75.04	C
ATOM	7195	C	PHE	A	476	13.387	77.799	30.700	1.00	70.39	C
ATOM	7196	O	PHE	A	476	13.352	76.982	29.769	1.00	68.44	O
ATOM	7197	N	ALA	A	477	13.883	79.023	30.552	1.00	68.66	N
ATOM	7199	CA	ALA	A	477	14.383	79.489	29.260	1.00	67.01	C
ATOM	7201	CB	ALA	A	477	13.284	80.229	28.508	1.00	69.69	C
ATOM	7205	C	ALA	A	477	15.614	80.384	29.441	1.00	64.49	C
ATOM	7206	O	ALA	A	477	15.528	81.479	30.034	1.00	61.06	O
ATOM	7207	N	SER	A	478	16.756	79.888	28.956	1.00	57.72	N
ATOM	7209	CA	SER	A	478	17.987	80.664	28.911	1.00	53.98	C
ATOM	7211	CB	SER	A	478	19.214	79.801	29.202	1.00	55.82	C
ATOM	7214	OG	SER	A	478	19.176	79.262	30.509	1.00	61.71	O
ATOM	7216	C	SER	A	478	18.125	81.225	27.521	1.00	47.16	C
ATOM	7217	O	SER	A	478	17.633	80.637	26.560	1.00	46.55	O
ATOM	7218	N	VAL	A	479	18.829	82.346	27.426	1.00	39.90	N
ATOM	7220	CA	VAL	A	479	19.137	82.988	26.153	1.00	37.43	C
ATOM	7222	CB	VAL	A	479	18.004	83.978	25.673	1.00	37.69	C
ATOM	7224	CG1	VAL	A	479	16.799	83.227	25.163	1.00	37.71	C
ATOM	7228	CG2	VAL	A	479	17.577	84.936	26.777	1.00	37.30	C
ATOM	7232	C	VAL	A	479	20.432	83.773	26.326	1.00	35.07	C
ATOM	7233	O	VAL	A	479	20.721	84.262	27.409	1.00	33.20	O
ATOM	7234	N	PRO	A	480	21.212	83.919	25.274	1.00	31.63	N
ATOM	7235	CA	PRO	A	480	22.431	84.715	25.383	1.00	35.67	C
ATOM	7237	CB	PRO	A	480	23.145	84.478	24.050	1.00	34.43	C
ATOM	7240	CG	PRO	A	480	22.089	84.013	23.128	1.00	33.00	C
ATOM	7243	CD	PRO	A	480	21.010	83.370	23.930	1.00	29.68	C
ATOM	7246	C	PRO	A	480	22.092	86.186	25.537	1.00	38.99	C
ATOM	7247	O	PRO	A	480	20.982	86.587	25.193	1.00	45.42	O
ATOM	7248	N	PRO	A	481	23.042	86.974	26.015	1.00	39.11	N
ATOM	7249	CA	PRO	A	481	22.892	88.413	26.050	1.00	39.33	C
ATOM	7251	CB	PRO	A	481	24.056	88.852	26.938	1.00	38.55	C
ATOM	7254	CG	PRO	A	481	25.109	87.886	26.628	1.00	40.31	C
ATOM	7257	CD	PRO	A	481	24.366	86.568	26.513	1.00	41.67	C
ATOM	7260	C	PRO	A	481	23.099	88.957	24.663	1.00	40.43	C
ATOM	7261	O	PRO	A	481	23.670	88.313	23.789	1.00	43.39	O
ATOM	7262	N	PHE	A	482	22.685	90.188	24.477	1.00	41.22	N
ATOM	7264	CA	PHE	A	482	22.738	90.776	23.166	1.00	41.31	C
ATOM	7266	CB	PHE	A	482	21.894	92.056	23.148	1.00	41.83	C
ATOM	7269	CG	PHE	A	482	22.201	92.946	21.989	1.00	44.01	C
ATOM	7270	CD1	PHE	A	482	23.214	93.899	22.082	1.00	42.62	C
ATOM	7272	CE1	PHE	A	482	23.515	94.702	21.006	1.00	44.26	C
ATOM	7274	CZ	PHE	A	482	22.808	94.555	19.817	1.00	42.63	C
ATOM	7276	CE2	PHE	A	482	21.802	93.604	19.719	1.00	41.73	C
ATOM	7278	CD2	PHE	A	482	21.509	92.803	20.794	1.00	40.90	C
ATOM	7280	C	PHE	A	482	24.178	91.087	22.806	1.00	36.80	C
ATOM	7281	O	PHE	A	482	24.917	91.582	23.620	1.00	41.70	O
ATOM	7282	N	TYR	A	483	24.558	90.823	21.571	1.00	37.59	N
ATOM	7284	CA	TYR	A	483	25.864	91.230	21.058	1.00	37.31	C
ATOM	7286	CB	TYR	A	483	26.912	90.126	21.266	1.00	34.16	C
ATOM	7289	CG	TYR	A	483	26.655	88.890	20.412	1.00	33.32	C
ATOM	7290	CD1	TYR	A	483	27.371	88.673	19.232	1.00	36.10	C
ATOM	7292	CE1	TYR	A	483	27.133	87.556	18.442	1.00	34.13	C
ATOM	7294	CZ	TYR	A	483	26.164	86.642	18.836	1.00	36.58	C
ATOM	7295	OH	TYR	A	483	25.911	85.546	18.047	1.00	28.98	O
ATOM	7297	CE2	TYR	A	483	25.437	86.840	20.008	1.00	33.00	C
ATOM	7299	CD2	TYR	A	483	25.686	87.953	20.778	1.00	31.73	C
ATOM	7301	C	TYR	A	483	25.778	91.526	19.573	1.00	38.12	C
ATOM	7302	O	TYR	A	483	24.790	91.226	18.916	1.00	38.93	O
ATOM	7303	N	GLN	A	484	26.848	92.100	19.061	1.00	40.74	N
ATOM	7305	CA	GLN	A	484	27.018	92.311	17.647	1.00	45.85	C
ATOM	7307	CB	GLN	A	484	26.981	93.807	17.350	1.00	49.47	C
ATOM	7310	CG	GLN	A	484	25.690	94.536	17.778	1.00	54.98	C
ATOM	7313	CD	GLN	A	484	25.597	95.938	17.166	1.00	54.65	C
ATOM	7314	OE1	GLN	A	484	26.533	96.728	17.286	1.00	57.68	O
ATOM	7315	NE2	GLN	A	484	24.490	96.231	16.494	1.00	56.33	N
ATOM	7318	C	GLN	A	484	28.363	91.749	17.174	1.00	45.57	C
ATOM	7319	O	GLN	A	484	29.290	91.536	17.967	1.00	47.33	O
ATOM	7320	N	LEU	A	485	28.466	91.533	15.867	1.00	43.46	N

347/514

Figure 5

ATOM	7322	CA	LEU	A	485	29.708	91.082	15.249	1.00	45.53	C
ATOM	7324	CB	LEU	A	485	29.923	89.590	15.542	1.00	45.57	C
ATOM	7327	CG	LEU	A	485	29.087	88.564	14.767	1.00	45.06	C
ATOM	7329	CD1	LEU	A	485	29.554	87.153	15.059	1.00	46.91	C
ATOM	7333	CD2	LEU	A	485	27.618	88.693	15.075	1.00	47.47	C
ATOM	7337	C	LEU	A	485	29.723	91.349	13.734	1.00	44.45	C
ATOM	7338	O	LEU	A	485	28.676	91.553	13.126	1.00	44.75	O
ATOM	7339	N	CYS	A	486	30.910	91.338	13.137	1.00	43.20	N
ATOM	7341	CA	CYS	A	486	31.054	91.508	11.701	1.00	44.90	C
ATOM	7343	CB	CYS	A	486	32.148	92.526	11.370	1.00	47.18	C
ATOM	7346	SG	CYS	A	486	32.067	94.053	12.323	1.00	52.37	S
ATOM	7347	C	CYS	A	486	31.468	90.190	11.130	1.00	46.71	C
ATOM	7348	O	CYS	A	486	32.281	89.493	11.719	1.00	48.17	O
ATOM	7349	N	PHE	A	487	30.933	89.855	9.968	1.00	47.17	N
ATOM	7351	CA	PHE	A	487	31.341	88.652	9.273	1.00	45.68	C
ATOM	7353	CB	PHE	A	487	30.098	87.931	8.716	1.00	45.57	C
ATOM	7356	CG	PHE	A	487	29.172	87.413	9.790	1.00	43.37	C
ATOM	7357	CD1	PHE	A	487	28.211	88.233	10.353	1.00	44.34	C
ATOM	7359	CE1	PHE	A	487	27.363	87.757	11.376	1.00	43.66	C
ATOM	7361	CZ	PHE	A	487	27.486	86.455	11.834	1.00	38.60	C
ATOM	7363	CE2	PHE	A	487	28.439	85.633	11.275	1.00	41.83	C
ATOM	7365	CD2	PHE	A	487	29.277	86.107	10.252	1.00	40.53	C
ATOM	7367	C	PHE	A	487	32.328	89.056	8.172	1.00	46.46	C
ATOM	7368	O	PHE	A	487	31.910	89.471	7.101	1.00	48.55	O
ATOM	7369	N	ILE	A	488	33.630	88.963	8.455	1.00	47.42	N
ATOM	7371	CA	ILE	A	488	34.682	89.303	7.482	1.00	49.52	C
ATOM	7373	CB	ILE	A	488	35.985	89.773	8.184	1.00	46.95	C
ATOM	7375	CG1	ILE	A	488	35.822	91.169	8.752	1.00	46.01	C
ATOM	7378	CD1	ILE	A	488	35.125	91.182	10.042	1.00	52.03	C
ATOM	7382	CG2	ILE	A	488	37.148	89.793	7.199	1.00	46.20	C
ATOM	7386	C	ILE	A	488	35.041	88.115	6.598	1.00	51.52	C
ATOM	7387	O	ILE	A	488	35.512	87.120	7.107	1.00	54.99	O
ATOM	7388	N	PRO	A	489	34.895	88.219	5.281	1.00	55.05	N
ATOM	7389	CA	PRO	A	489	35.207	87.077	4.410	1.00	56.93	C
ATOM	7391	CB	PRO	A	489	34.751	87.552	3.025	1.00	57.54	C
ATOM	7394	CG	PRO	A	489	33.824	88.692	3.307	1.00	56.71	C
ATOM	7397	CD	PRO	A	489	34.417	89.373	4.506	1.00	54.56	C
ATOM	7400	C	PRO	A	489	36.685	86.728	4.419	1.00	55.92	C
ATOM	7401	O	PRO	A	489	37.503	87.616	4.589	1.00	62.07	O
ATOM	7402	N	VAL	A	490	37.007	85.457	4.230	1.00	55.87	N
ATOM	7404	CA	VAL	A	490	38.375	84.956	4.378	1.00	57.14	C
ATOM	7406	CB	VAL	A	490	38.364	83.434	4.663	1.00	56.13	C
ATOM	7408	CG1	VAL	A	490	37.644	83.142	5.959	1.00	55.78	C
ATOM	7412	CG2	VAL	A	490	37.730	82.645	3.510	1.00	54.84	C
ATOM	7416	C	VAL	A	490	39.286	85.243	3.154	1.00	61.04	C
ATOM	7417	O	VAL	A	490	38.798	85.177	2.017	1.00	62.59	O
ATOM	7418	OXT	VAL	A	490	40.514	85.528	3.240	1.00	57.05	O
ATOM	7419	FE1	HEM	A	501	13.254	69.399	20.011	1.00	36.38	FE
ATOM	7420	N5	HEM	A	501	11.888	68.813	19.774	1.00	36.51	N
ATOM	7421	C21	HEM	A	501	11.030	68.232	20.687	1.00	31.85	C
ATOM	7422	C20	HEM	A	501	9.740	67.672	20.185	1.00	26.53	C
ATOM	7423	C39	HEM	A	501	8.574	67.001	20.910	1.00	28.65	C
ATOM	7426	C40	HEM	A	501	8.714	65.558	21.310	1.00	31.21	C
ATOM	7428	C41	HEM	A	501	7.669	64.951	21.926	1.00	35.18	C
ATOM	7429	O42	HEM	A	501	7.475	63.748	21.841	1.00	32.41	O
ATOM	7430	O43	HEM	A	501	6.885	65.584	22.607	1.00	38.17	O
ATOM	7431	C18	HEM	A	501	11.129	68.655	18.628	1.00	22.63	C
ATOM	7432	C19	HEM	A	501	9.796	67.996	18.791	1.00	24.38	C
ATOM	7433	C38	HEM	A	501	8.687	67.608	17.826	1.00	27.11	C
ATOM	7434	C25	HEM	A	501	11.472	69.106	17.284	1.00	27.70	C
ATOM	7436	C17	HEM	A	501	12.704	69.776	16.908	1.00	25.59	C
ATOM	7437	C16	HEM	A	501	13.036	70.189	15.554	1.00	29.03	C
ATOM	7438	C36	HEM	A	501	12.213	69.994	14.339	1.00	35.39	C
ATOM	7440	C37	HEM	A	501	11.650	68.599	14.150	1.00	34.96	C
ATOM	7441	C15	HEM	A	501	14.356	70.825	15.667	1.00	28.61	C
ATOM	7442	C35	HEM	A	501	15.208	71.463	14.617	1.00	25.56	C
ATOM	7443	C14	HEM	A	501	14.608	70.696	17.136	1.00	28.13	C
ATOM	7444	N4	HEM	A	501	13.635	70.089	17.810	1.00	26.80	N
ATOM	7446	C24	HEM	A	501	15.813	71.194	17.823	1.00	18.28	C
ATOM	7448	C13	HEM	A	501	16.119	71.071	19.268	1.00	24.04	C
ATOM	7449	C12	HEM	A	501	17.390	71.619	19.787	1.00	13.66	C
ATOM	7450	C33	HEM	A	501	18.426	72.266	18.975	1.00	19.83	C
ATOM	7452	C34	HEM	A	501	19.563	73.052	19.589	1.00	33.37	C
ATOM	7453	C11	HEM	A	501	17.374	71.301	21.212	1.00	17.56	C
ATOM	7454	C32	HEM	A	501	18.416	71.627	22.231	1.00	22.78	C
ATOM	7455	C10	HEM	A	501	16.040	70.621	21.369	1.00	19.40	C

Figure 5

ATOM	7456	N3	HEM	A	501	15.336	70.467	20.228	1.00	20.63
ATOM	7458	C23	HEM	A	501	15.588	70.137	22.677	1.00	23.60
ATOM	7460	C9	HEM	A	501	14.354	69.445	23.031	1.00	24.55
ATOM	7461	N2	HEM	A	501	13.463	69.168	22.102	1.00	31.77
ATOM	7463	C6	HEM	A	501	12.449	68.557	22.751	1.00	28.30
ATOM	7464	C22	HEM	A	501	11.256	68.083	22.112	1.00	23.38
ATOM	7466	C8	HEM	A	501	13.968	68.988	24.403	1.00	25.34
ATOM	7467	C26	HEM	A	501	14.746	69.134	25.660	1.00	28.53
ATOM	7468	C7	HEM	A	501	12.649	68.362	24.165	1.00	24.97
ATOM	7469	C27	HEM	A	501	11.648	67.689	25.007	1.00	29.38
ATOM	7471	C28	HEM	A	501	12.040	67.205	26.355	1.00	39.94
ATOM	7474	C29	HEM	A	501	11.299	65.972	26.776	1.00	39.12
ATOM	7475	O30	HEM	A	501	10.122	65.814	26.496	1.00	39.32
ATOM	7476	O31	HEM	A	501	11.905	65.153	27.430	1.00	38.31
ATOM	7477	N	PRO	B	30	57.425	70.240	57.617	1.00	54.43
ATOM	7478	CA	PRO	B	30	56.507	69.110	57.849	1.00	56.73
ATOM	7480	CB	PRO	B	30	56.271	68.528	56.436	1.00	53.60
ATOM	7483	CG	PRO	B	30	56.624	69.568	55.503	1.00	50.78
ATOM	7486	CD	PRO	B	30	57.682	70.411	56.180	1.00	56.04
ATOM	7489	C	PRO	B	30	57.165	68.075	58.721	1.00	58.10
ATOM	7490	O	PRO	B	30	58.388	68.101	58.819	1.00	62.13
ATOM	7493	N	PRO	B	31	56.374	67.174	59.307	1.00	58.74
ATOM	7494	CA	PRO	B	31	56.878	66.171	60.250	1.00	59.47
ATOM	7496	CB	PRO	B	31	55.598	65.572	60.850	1.00	60.00
ATOM	7499	CG	PRO	B	31	54.565	65.744	59.789	1.00	59.27
ATOM	7502	CD	PRO	B	31	54.922	67.034	59.084	1.00	59.30
ATOM	7505	C	PRO	B	31	57.637	65.126	59.486	1.00	61.31
ATOM	7506	O	PRO	B	31	57.806	65.343	58.301	1.00	64.88
ATOM	7507	N	GLY	B	32	58.064	64.040	60.131	1.00	64.11
ATOM	7509	CA	GLY	B	32	58.800	62.960	59.474	1.00	63.30
ATOM	7512	C	GLY	B	32	59.794	62.275	60.400	1.00	61.87
ATOM	7513	O	GLY	B	32	60.103	62.805	61.465	1.00	61.56
ATOM	7514	N	PRO	B	33	60.351	61.136	59.993	1.00	61.48
ATOM	7515	CA	PRO	B	33	61.204	60.368	60.905	1.00	62.51
ATOM	7517	CB	PRO	B	33	61.495	59.058	60.154	1.00	58.71
ATOM	7520	CG	PRO	B	33	60.693	59.106	58.933	1.00	61.28
ATOM	7523	CD	PRO	B	33	60.324	60.542	58.651	1.00	61.30
ATOM	7526	C	PRO	B	33	62.485	61.129	61.194	1.00	63.89
ATOM	7527	O	PRO	B	33	62.873	62.013	60.415	1.00	65.39
ATOM	7528	N	THR	B	34	63.101	60.801	62.324	1.00	64.96
ATOM	7530	CA	THR	B	34	64.306	61.479	62.771	1.00	64.37
ATOM	7532	CB	THR	B	34	64.462	61.328	64.309	1.00	64.76
ATOM	7534	OG1	THR	B	34	63.852	62.459	64.937	1.00	64.88
ATOM	7536	CG2	THR	B	34	65.944	61.370	64.790	1.00	65.45
ATOM	7540	C	THR	B	34	65.479	60.896	61.992	1.00	62.59
ATOM	7541	O	THR	B	34	65.677	59.677	62.005	1.00	61.17
ATOM	7542	N	PRO	B	35	66.207	61.753	61.273	1.00	61.95
ATOM	7543	CA	PRO	B	35	67.376	61.313	60.515	1.00	62.44
ATOM	7545	CB	PRO	B	35	67.590	62.447	59.503	1.00	62.98
ATOM	7548	CG	PRO	B	35	67.081	63.668	60.188	1.00	62.89
ATOM	7551	CD	PRO	B	35	65.962	63.201	61.100	1.00	63.02
ATOM	7554	C	PRO	B	35	68.598	61.154	61.408	1.00	64.13
ATOM	7555	O	PRO	B	35	68.954	62.068	62.153	1.00	59.59
ATOM	7556	N	LEU	B	36	69.212	59.977	61.319	1.00	66.86
ATOM	7558	CA	LEU	B	36	70.513	59.706	61.908	1.00	68.73
ATOM	7560	CB	LEU	B	36	70.813	58.211	61.770	1.00	68.51
ATOM	7563	CG	LEU	B	36	69.980	57.289	62.688	1.00	68.44
ATOM	7565	CD1	LEU	B	36	70.343	55.858	62.373	1.00	66.02
ATOM	7569	CD2	LEU	B	36	70.142	57.552	64.205	1.00	66.36
ATOM	7573	C	LEU	B	36	71.624	60.574	61.269	1.00	71.80
ATOM	7574	O	LEU	B	36	71.449	61.086	60.156	1.00	72.79
ATOM	7575	N	PRO	B	37	72.751	60.750	61.974	1.00	74.33
ATOM	7576	CA	PRO	B	37	73.766	61.752	61.611	1.00	74.39
ATOM	7578	CB	PRO	B	37	75.021	61.271	62.371	1.00	75.81
ATOM	7581	CG	PRO	B	37	74.509	60.548	63.587	1.00	75.55
ATOM	7584	CD	PRO	B	37	73.142	60.024	63.204	1.00	75.72
ATOM	7587	C	PRO	B	37	74.079	61.938	60.118	1.00	72.91
ATOM	7588	O	PRO	B	37	73.912	63.056	59.616	1.00	74.58
ATOM	7589	N	VAL	B	38	74.544	60.892	59.440	1.00	70.18
ATOM	7591	CA	VAL	B	38	74.979	61.022	58.041	1.00	70.53
ATOM	7593	CB	VAL	B	38	76.506	60.779	57.906	1.00	72.77
ATOM	7595	CG1	VAL	B	38	76.860	59.290	58.170	1.00	74.43
ATOM	7599	CG2	VAL	B	38	77.024	61.268	56.523	1.00	73.14
ATOM	7603	C	VAL	B	38	74.215	60.113	57.062	1.00	67.69
ATOM	7604	O	VAL	B	38	74.041	60.454	55.888	1.00	66.86
ATOM	7605	N	ILE	B	39	73.774	58.958	57.548	1.00	65.10

[illegible]

349/514

Figure 5

ATOM	7607	CA	ILE	B	39	72.951	58.044	56.760	1.00	63.34	C
ATOM	7609	CB	ILE	B	39	72.975	56.598	57.376	1.00	64.80	C
ATOM	7611	CG1	ILE	B	39	72.644	56.599	58.874	1.00	63.61	C
ATOM	7614	CD1	ILE	B	39	72.515	55.196	59.439	1.00	63.21	C
ATOM	7618	CG2	ILE	B	39	74.328	55.916	57.140	1.00	65.92	C
ATOM	7622	C	ILE	B	39	71.491	58.527	56.548	1.00	60.94	C
ATOM	7623	O	ILE	B	39	70.756	57.940	55.759	1.00	59.84	O
ATOM	7624	N	GLY	B	40	71.073	59.585	57.239	1.00	56.80	N
ATOM	7626	CA	GLY	B	40	69.717	60.090	57.103	1.00	53.11	C
ATOM	7629	C	GLY	B	40	68.676	59.047	57.467	1.00	50.59	C
ATOM	7630	O	GLY	B	40	68.791	58.396	58.510	1.00	52.88	O
ATOM	7631	N	ASN	B	41	67.669	58.877	56.605	1.00	48.30	N
ATOM	7633	CA	ASN	B	41	66.564	57.938	56.853	1.00	46.68	C
ATOM	7635	CB	ASN	B	41	65.214	58.567	56.490	1.00	45.30	C
ATOM	7638	CG	ASN	B	41	64.778	59.627	57.472	1.00	46.24	C
ATOM	7639	OD1	ASN	B	41	64.641	59.370	58.680	1.00	46.21	O
ATOM	7640	ND2	ASN	B	41	64.538	60.829	56.963	1.00	38.07	N
ATOM	7643	C	ASN	B	41	66.720	56.624	56.106	1.00	45.74	C
ATOM	7644	O	ASN	B	41	65.818	55.799	56.116	1.00	41.06	O
ATOM	7645	N	ILE	B	42	67.868	56.424	55.469	1.00	48.21	N
ATOM	7647	CA	ILE	B	42	68.187	55.148	54.824	1.00	51.94	C
ATOM	7649	CB	ILE	B	42	69.678	55.104	54.399	1.00	50.69	C
ATOM	7651	CG1	ILE	B	42	69.851	54.324	53.100	1.00	51.62	C
ATOM	7654	CD1	ILE	B	42	71.292	54.312	52.588	1.00	50.59	C
ATOM	7658	CG2	ILE	B	42	70.537	54.450	55.471	1.00	50.95	C
ATOM	7662	C	ILE	B	42	67.859	53.905	55.676	1.00	52.96	C
ATOM	7663	O	ILE	B	42	67.677	52.823	55.134	1.00	56.00	O
ATOM	7664	N	LEU	B	43	67.797	54.043	56.994	1.00	55.68	N
ATOM	7666	CA	LEU	B	43	67.536	52.877	57.834	1.00	60.16	C
ATOM	7668	CB	LEU	B	43	67.896	53.179	59.281	1.00	60.52	C
ATOM	7671	CG	LEU	B	43	69.086	52.368	59.814	1.00	64.39	C
ATOM	7673	CD1	LEU	B	43	70.076	51.811	58.755	1.00	64.31	C
ATOM	7677	CD2	LEU	B	43	69.834	53.210	60.815	1.00	66.13	C
ATOM	7681	C	LEU	B	43	66.101	52.338	57.723	1.00	60.99	C
ATOM	7682	O	LEU	B	43	65.886	51.123	57.707	1.00	57.98	O
ATOM	7683	N	GLN	B	44	65.149	53.259	57.632	1.00	61.79	N
ATOM	7685	CA	GLN	B	44	63.735	52.940	57.457	1.00	64.99	C
ATOM	7687	CB	GLN	B	44	62.834	53.943	58.234	1.00	68.02	C
ATOM	7690	CG	GLN	B	44	63.256	55.441	58.215	1.00	72.27	C
ATOM	7693	CD	GLN	B	44	63.912	55.929	59.534	1.00	76.63	C
ATOM	7694	OE1	GLN	B	44	63.206	56.252	60.490	1.00	82.52	O
ATOM	7695	NE2	GLN	B	44	65.245	55.998	59.570	1.00	72.60	N
ATOM	7698	C	GLN	B	44	63.293	52.799	55.971	1.00	63.93	C
ATOM	7699	O	GLN	B	44	62.682	51.775	55.609	1.00	62.76	O
ATOM	7700	N	ILE	B	45	63.581	53.785	55.116	1.00	60.42	N
ATOM	7702	CA	ILE	B	45	63.172	53.682	53.699	1.00	61.83	C
ATOM	7704	CB	ILE	B	45	63.344	55.006	52.908	1.00	61.71	C
ATOM	7706	CG1	ILE	B	45	64.814	55.325	52.670	1.00	62.20	C
ATOM	7709	CD1	ILE	B	45	65.086	56.757	52.240	1.00	63.33	C
ATOM	7713	CG2	ILE	B	45	62.636	56.143	53.624	1.00	65.65	C
ATOM	7717	C	ILE	B	45	63.878	52.548	52.956	1.00	60.69	C
ATOM	7718	O	ILE	B	45	63.288	51.905	52.098	1.00	59.79	O
ATOM	7719	N	GLY	B	46	65.132	52.302	53.298	1.00	61.09	N
ATOM	7721	CA	GLY	B	46	65.915	51.305	52.608	1.00	61.35	C
ATOM	7724	C	GLY	B	46	66.397	51.861	51.287	1.00	63.36	C
ATOM	7725	O	GLY	B	46	66.672	53.047	51.163	1.00	59.52	O
ATOM	7726	N	ILE	B	47	66.430	50.998	50.279	1.00	68.04	N
ATOM	7728	CA	ILE	B	47	67.234	51.221	49.077	1.00	68.43	C
ATOM	7730	CB	ILE	B	47	68.689	50.833	49.415	1.00	68.91	C
ATOM	7732	CG1	ILE	B	47	69.619	50.994	48.207	1.00	69.77	C
ATOM	7735	CD1	ILE	B	47	71.000	50.340	48.379	1.00	68.99	C
ATOM	7739	CG2	ILE	B	47	68.729	49.401	50.013	1.00	70.92	C
ATOM	7743	C	ILE	B	47	66.689	50.414	47.882	1.00	70.85	C
ATOM	7744	O	ILE	B	47	66.852	50.823	46.729	1.00	67.62	O
ATOM	7745	N	LYS	B	48	66.065	49.267	48.167	1.00	74.69	N
ATOM	7747	CA	LYS	B	48	65.306	48.515	47.165	1.00	78.41	C
ATOM	7749	CB	LYS	B	48	65.091	47.034	47.586	1.00	81.26	C
ATOM	7752	CG	LYS	B	48	64.759	46.747	49.089	1.00	84.00	C
ATOM	7755	CD	LYS	B	48	64.566	45.233	49.360	1.00	84.78	C
ATOM	7758	CE	LYS	B	48	64.152	44.935	50.815	1.00	84.61	C
ATOM	7761	NZ	LYS	B	48	65.308	44.899	51.759	1.00	80.92	N
ATOM	7765	C	LYS	B	48	63.979	49.244	46.801	1.00	78.58	C
ATOM	7766	O	LYS	B	48	64.008	50.164	45.984	1.00	77.76	O
ATOM	7767	N	ASP	B	49	62.849	48.855	47.406	1.00	78.47	N
ATOM	7769	CA	ASP	B	49	61.511	49.396	47.071	1.00	80.27	C
ATOM	7771	CB	ASP	B	49	60.424	48.284	47.234	1.00	84.46	C

350/514

Figure 5

ATOM	7774	CG	ASP	B	49	59.032	48.651	46.598	1.00	88.36	C
ATOM	7775	OD1	ASP	B	49	58.115	47.788	46.626	1.00	87.53	O
ATOM	7776	OD2	ASP	B	49	58.749	49.743	46.052	1.00	92.27	O
ATOM	7777	C	ASP	B	49	61.161	50.597	47.953	1.00	76.85	C
ATOM	7778	O	ASP	B	49	60.349	50.476	48.877	1.00	76.75	O
ATOM	7779	N	ILE	B	50	61.748	51.759	47.669	1.00	73.15	N
ATOM	7781	CA	ILE	B	50	61.466	52.944	48.484	1.00	72.13	C
ATOM	7783	CB	ILE	B	50	62.368	54.160	48.102	1.00	71.66	C
ATOM	7785	CG1	ILE	B	50	61.953	54.768	46.761	1.00	76.38	C
ATOM	7788	CD1	ILE	B	50	61.691	56.269	46.818	1.00	77.55	C
ATOM	7792	CG2	ILE	B	50	63.851	53.767	48.064	1.00	71.11	C
ATOM	7796	C	ILE	B	50	59.956	53.311	48.473	1.00	71.34	C
ATOM	7797	O	ILE	B	50	59.446	53.836	49.453	1.00	71.26	O
ATOM	7798	N	SER	B	51	59.246	52.995	47.390	1.00	69.88	N
ATOM	7800	CA	SER	B	51	57.794	53.237	47.301	1.00	70.37	C
ATOM	7802	CB	SER	B	51	57.245	52.939	45.874	1.00	73.12	C
ATOM	7805	OG	SER	B	51	58.067	52.050	45.106	1.00	73.89	O
ATOM	7807	C	SER	B	51	56.941	52.483	48.348	1.00	68.31	C
ATOM	7808	O	SER	B	51	55.968	53.037	48.870	1.00	58.23	O
ATOM	7809	N	LYS	B	52	57.291	51.227	48.643	1.00	70.45	N
ATOM	7811	CA	LYS	B	52	56.501	50.414	49.588	1.00	71.98	C
ATOM	7813	CB	LYS	B	52	56.950	48.945	49.616	1.00	76.11	C
ATOM	7816	CG	LYS	B	52	55.805	47.958	49.974	1.00	81.92	C
ATOM	7819	CD	LYS	B	52	54.949	47.565	48.739	1.00	85.82	C
ATOM	7822	CE	LYS	B	52	53.521	48.152	48.778	1.00	86.39	C
ATOM	7825	NZ	LYS	B	52	52.931	48.286	47.403	1.00	87.07	N
ATOM	7829	C	LYS	B	52	56.554	50.991	50.995	1.00	67.60	C
ATOM	7830	O	LYS	B	52	55.539	51.006	51.709	1.00	69.43	O
ATOM	7831	N	SER	B	53	57.732	51.480	51.377	1.00	59.69	N
ATOM	7833	CA	SER	B	53	57.903	52.093	52.685	1.00	55.82	C
ATOM	7835	CB	SER	B	53	59.369	52.033	53.114	1.00	52.93	C
ATOM	7838	OG	SER	B	53	60.181	52.734	52.226	1.00	51.20	O
ATOM	7840	C	SER	B	53	57.347	53.522	52.801	1.00	55.39	C
ATOM	7841	O	SER	B	53	57.180	54.020	53.906	1.00	54.81	O
ATOM	7842	N	LEU	B	54	57.064	54.181	51.676	1.00	55.84	N
ATOM	7844	CA	LEU	B	54	56.466	55.520	51.679	1.00	50.19	C
ATOM	7846	CB	LEU	B	54	56.617	56.173	50.317	1.00	49.20	C
ATOM	7849	CG	LEU	B	54	57.981	56.749	49.978	1.00	53.14	C
ATOM	7851	CD1	LEU	B	54	57.983	57.236	48.533	1.00	58.13	C
ATOM	7855	CD2	LEU	B	54	58.365	57.879	50.878	1.00	52.49	C
ATOM	7859	C	LEU	B	54	54.975	55.465	52.035	1.00	51.35	C
ATOM	7860	O	LEU	B	54	54.453	56.358	52.711	1.00	51.60	O
ATOM	7861	N	THR	B	55	54.279	54.432	51.579	1.00	47.22	N
ATOM	7863	CA	THR	B	55	52.901	54.239	52.008	1.00	49.08	C
ATOM	7865	CB	THR	B	55	52.213	53.204	51.117	1.00	48.57	C
ATOM	7867	OG1	THR	B	55	52.004	53.778	49.822	1.00	53.30	O
ATOM	7869	CG2	THR	B	55	50.806	52.882	51.613	1.00	47.10	C
ATOM	7873	C	THR	B	55	52.820	53.829	53.488	1.00	49.09	C
ATOM	7874	O	THR	B	55	51.864	54.152	54.173	1.00	50.67	O
ATOM	7875	N	ASN	B	56	53.808	53.096	53.978	1.00	50.90	N
ATOM	7877	CA	ASN	B	56	53.879	52.821	55.409	1.00	48.33	C
ATOM	7879	CB	ASN	B	56	54.956	51.795	55.724	1.00	44.50	C
ATOM	7882	CG	ASN	B	56	54.505	50.392	55.428	1.00	43.30	C
ATOM	7883	OD1	ASN	B	56	53.353	50.146	55.082	1.00	39.24	O
ATOM	7884	ND2	ASN	B	56	55.419	49.458	55.559	1.00	46.07	N
ATOM	7887	C	ASN	B	56	54.104	54.091	56.209	1.00	47.97	C
ATOM	7888	O	ASN	B	56	53.444	54.299	57.230	1.00	52.67	O
ATOM	7889	N	LEU	B	57	54.984	54.965	55.744	1.00	43.86	N
ATOM	7891	CA	LEU	B	57	55.243	56.197	56.484	1.00	47.09	C
ATOM	7893	CB	LEU	B	57	56.520	56.894	55.994	1.00	46.41	C
ATOM	7896	CG	LEU	B	57	57.828	56.132	56.292	1.00	50.59	C
ATOM	7898	CD1	LEU	B	57	58.981	56.643	55.466	1.00	51.68	C
ATOM	7902	CD2	LEU	B	57	58.212	56.168	57.769	1.00	53.01	C
ATOM	7906	C	LEU	B	57	54.046	57.168	56.476	1.00	49.03	C
ATOM	7907	O	LEU	B	57	53.927	57.993	57.374	1.00	51.53	O
ATOM	7908	N	SER	B	58	53.156	57.075	55.489	1.00	49.86	N
ATOM	7910	CA	SER	B	58	52.042	58.021	55.408	1.00	48.26	C
ATOM	7912	CB	SER	B	58	51.368	58.009	54.022	1.00	46.64	C
ATOM	7915	OG	SER	B	58	50.574	56.843	53.842	1.00	44.98	O
ATOM	7917	C	SER	B	58	51.045	57.683	56.502	1.00	46.79	C
ATOM	7918	O	SER	B	58	50.378	58.564	57.035	1.00	48.29	O
ATOM	7919	N	LYS	B	59	50.970	56.398	56.822	1.00	43.76	N
ATOM	7921	CA	LYS	B	59	50.092	55.874	57.848	1.00	44.17	C
ATOM	7923	CB	LYS	B	59	50.205	54.346	57.869	1.00	46.56	C
ATOM	7926	CG	LYS	B	59	49.086	53.591	57.191	1.00	49.93	C
ATOM	7929	CD	LYS	B	59	48.767	54.084	55.764	1.00	53.96	C

351/514

Figure 5

ATOM	7932	CE	LYS	B	59	47.701	53.200	55.116	1.00	54.10	C
ATOM	7935	NZ	LYS	B	59	47.763	51.792	55.664	1.00	57.02	N
ATOM	7939	C	LYS	B	59	50.439	56.434	59.230	1.00	46.11	C
ATOM	7940	O	LYS	B	59	49.602	56.404	60.135	1.00	45.35	O
ATOM	7941	N	VAL	B	60	51.666	56.933	59.396	1.00	45.72	N
ATOM	7943	CA	VAL	B	60	52.062	57.538	60.654	1.00	43.72	C
ATOM	7945	CB	VAL	B	60	53.236	56.763	61.392	1.00	45.18	C
ATOM	7947	CG1	VAL	B	60	53.701	55.516	60.632	1.00	43.71	C
ATOM	7951	CG2	VAL	B	60	54.413	57.678	61.745	1.00	46.50	C
ATOM	7955	C	VAL	B	60	52.328	59.026	60.588	1.00	44.24	C
ATOM	7956	O	VAL	B	60	52.103	59.695	61.578	1.00	47.49	O
ATOM	7957	N	TYR	B	61	52.774	59.592	59.477	1.00	42.00	N
ATOM	7959	CA	TYR	B	61	53.073	61.040	59.505	1.00	45.60	C
ATOM	7961	CB	TYR	B	61	54.521	61.325	59.066	1.00	46.36	C
ATOM	7964	CG	TYR	B	61	55.591	60.726	59.980	1.00	52.77	C
ATOM	7965	CD1	TYR	B	61	56.005	61.389	61.154	1.00	55.20	C
ATOM	7967	CE1	TYR	B	61	56.982	60.835	61.990	1.00	52.62	C
ATOM	7969	CZ	TYR	B	61	57.553	59.622	61.648	1.00	53.46	C
ATOM	7970	OH	TYR	B	61	58.505	59.051	62.453	1.00	51.41	O
ATOM	7972	CE2	TYR	B	61	57.163	58.957	60.490	1.00	53.00	C
ATOM	7974	CD2	TYR	B	61	56.198	59.506	59.668	1.00	50.50	C
ATOM	7976	C	TYR	B	61	52.068	61.895	58.704	1.00	47.89	C
ATOM	7977	O	TYR	B	61	52.189	63.130	58.620	1.00	46.50	O
ATOM	7978	N	GLY	B	62	51.055	61.244	58.141	1.00	49.06	N
ATOM	7980	CA	GLY	B	62	50.054	61.940	57.354	1.00	48.86	C
ATOM	7983	C	GLY	B	62	50.388	61.945	55.877	1.00	50.05	C
ATOM	7984	O	GLY	B	62	51.244	61.189	55.423	1.00	50.41	O
ATOM	7985	N	PRO	B	63	49.694	62.789	55.116	1.00	48.49	N
ATOM	7986	CA	PRO	B	63	49.854	62.831	53.666	1.00	45.87	C
ATOM	7988	CB	PRO	B	63	48.520	63.415	53.212	1.00	46.26	C
ATOM	7991	CG	PRO	B	63	48.159	64.352	54.283	1.00	43.56	C
ATOM	7994	CD	PRO	B	63	48.703	63.780	55.565	1.00	45.22	C
ATOM	7997	C	PRO	B	63	50.986	63.747	53.238	1.00	43.35	C
ATOM	7998	O	PRO	B	63	51.274	63.807	52.066	1.00	46.42	O
ATOM	7999	N	VAL	B	64	51.604	64.467	54.159	1.00	43.05	N
ATOM	8001	CA	VAL	B	64	52.666	65.392	53.802	1.00	43.45	C
ATOM	8003	CB	VAL	B	64	52.162	66.842	53.752	1.00	42.30	C
ATOM	8005	CG1	VAL	B	64	53.295	67.792	53.416	1.00	37.68	C
ATOM	8009	CG2	VAL	B	64	51.055	66.983	52.727	1.00	46.81	C
ATOM	8013	C	VAL	B	64	53.802	65.301	54.798	1.00	45.21	C
ATOM	8014	O	VAL	B	64	53.799	66.003	55.801	1.00	44.95	O
ATOM	8015	N	PHE	B	65	54.783	64.452	54.505	1.00	47.54	N
ATOM	8017	CA	PHE	B	65	55.916	64.266	55.412	1.00	48.77	C
ATOM	8019	CB	PHE	B	65	55.841	62.890	56.048	1.00	50.24	C
ATOM	8022	CG	PHE	B	65	55.805	61.745	55.081	1.00	47.32	C
ATOM	8023	CD1	PHE	B	65	54.588	61.166	54.715	1.00	49.90	C
ATOM	8025	CE1	PHE	B	65	54.544	60.059	53.857	1.00	45.43	C
ATOM	8027	CZ	PHE	B	65	55.724	59.532	53.377	1.00	44.94	C
ATOM	8029	CE2	PHE	B	65	56.943	60.104	53.753	1.00	42.93	C
ATOM	8031	CD2	PHE	B	65	56.975	61.194	54.605	1.00	43.60	C
ATOM	8033	C	PHE	B	65	57.305	64.461	54.823	1.00	47.75	C
ATOM	8034	O	PHE	B	65	57.505	64.238	53.643	1.00	46.86	O
ATOM	8035	N	THR	B	66	58.248	64.866	55.682	1.00	48.23	N
ATOM	8037	CA	THR	B	66	59.646	65.121	55.322	1.00	49.54	C
ATOM	8039	CB	THR	B	66	60.245	66.246	56.188	1.00	50.95	C
ATOM	8041	OG1	THR	B	66	59.555	67.489	55.952	1.00	53.54	O
ATOM	8043	CG2	THR	B	66	61.697	66.553	55.772	1.00	51.12	C
ATOM	8047	C	THR	B	66	60.513	63.860	55.433	1.00	51.62	C
ATOM	8048	O	THR	B	66	60.282	62.992	56.278	1.00	53.03	O
ATOM	8049	N	LEU	B	67	61.510	63.774	54.558	1.00	53.01	N
ATOM	8051	CA	LEU	B	67	62.397	62.622	54.486	1.00	53.33	C
ATOM	8053	CB	LEU	B	67	61.928	61.667	53.405	1.00	53.41	C
ATOM	8056	CG	LEU	B	67	61.969	60.214	53.835	1.00	56.72	C
ATOM	8058	CD1	LEU	B	67	61.064	60.010	55.042	1.00	59.62	C
ATOM	8062	CD2	LEU	B	67	61.548	59.331	52.684	1.00	59.51	C
ATOM	8066	C	LEU	B	67	63.830	63.016	54.205	1.00	53.29	C
ATOM	8067	O	LEU	B	67	64.105	64.097	53.701	1.00	48.63	O
ATOM	8068	N	TYR	B	68	64.749	62.105	54.501	1.00	57.56	N
ATOM	8070	CA	TYR	B	68	66.174	62.406	54.370	1.00	58.88	C
ATOM	8072	CB	TYR	B	68	66.828	62.619	55.744	1.00	59.94	C
ATOM	8075	CG	TYR	B	68	66.547	64.004	56.293	1.00	59.91	C
ATOM	8076	CD1	TYR	B	68	65.481	64.230	57.165	1.00	57.34	C
ATOM	8078	CE1	TYR	B	68	65.216	65.512	57.651	1.00	59.65	C
ATOM	8080	CZ	TYR	B	68	66.022	66.571	57.253	1.00	57.40	C
ATOM	8081	OH	TYR	B	68	65.763	67.828	57.712	1.00	58.80	O
ATOM	8083	CE2	TYR	B	68	67.077	66.372	56.387	1.00	56.10	C

352/514

Figure 5

ATOM	8085	CD2	TYR	B	68	67.331	65.100	55.904	1.00	58.00	C
ATOM	8087	C	TYR	B	68	66.919	61.372	53.554	1.00	56.90	C
ATOM	8088	O	TYR	B	68	67.018	60.200	53.926	1.00	52.83	O
ATOM	8089	N	PHE	B	69	67.386	61.828	52.399	1.00	59.37	N
ATOM	8091	CA	PHE	B	69	68.369	61.104	51.620	1.00	62.15	C
ATOM	8093	CB	PHE	B	69	68.054	61.199	50.127	1.00	66.18	C
ATOM	8096	CG	PHE	B	69	66.860	60.394	49.731	1.00	68.48	C
ATOM	8097	CD1	PHE	B	69	66.962	59.027	49.575	1.00	72.74	C
ATOM	8099	CE1	PHE	B	69	65.866	58.277	49.234	1.00	73.87	C
ATOM	8101	CZ	PHE	B	69	64.648	58.886	49.068	1.00	73.18	C
ATOM	8103	CE2	PHE	B	69	64.528	60.237	49.239	1.00	73.28	C
ATOM	8105	CD2	PHE	B	69	65.631	60.988	49.574	1.00	71.75	C
ATOM	8107	C	PHE	B	69	69.700	61.728	51.985	1.00	60.37	C
ATOM	8108	O	PHE	B	69	70.103	62.755	51.431	1.00	58.76	O
ATOM	8109	N	GLY	B	70	70.355	61.113	52.965	1.00	59.60	N
ATOM	8111	CA	GLY	B	70	71.523	61.695	53.588	1.00	59.13	C
ATOM	8114	C	GLY	B	70	71.170	63.017	54.231	1.00	56.62	C
ATOM	8115	O	GLY	B	70	70.475	63.053	55.237	1.00	56.39	O
ATOM	8116	N	LEU	B	71	71.643	64.099	53.627	1.00	58.18	N
ATOM	8118	CA	LEU	B	71	71.464	65.450	54.158	1.00	60.50	C
ATOM	8120	CB	LEU	B	71	72.803	66.211	54.126	1.00	60.58	C
ATOM	8123	CG	LEU	B	71	74.002	65.595	54.881	1.00	56.51	C
ATOM	8125	CD1	LEU	B	71	75.258	66.400	54.640	1.00	53.41	C
ATOM	8129	CD2	LEU	B	71	73.705	65.474	56.385	1.00	52.28	C
ATOM	8133	C	LEU	B	71	70.405	66.231	53.374	1.00	64.26	C
ATOM	8134	O	LEU	B	71	70.039	67.349	53.765	1.00	64.74	O
ATOM	8135	N	LYS	B	72	69.932	65.647	52.265	1.00	64.57	N
ATOM	8137	CA	LYS	B	72	68.899	66.248	51.435	1.00	62.31	C
ATOM	8139	CB	LYS	B	72	68.945	65.659	50.018	1.00	64.58	C
ATOM	8142	CG	LYS	B	72	68.407	66.591	48.898	1.00	65.46	C
ATOM	8145	CD	LYS	B	72	69.138	66.381	47.553	1.00	66.10	C
ATOM	8148	CE	LYS	B	72	68.198	66.505	46.353	1.00	66.80	C
ATOM	8151	NZ	LYS	B	72	67.453	67.793	46.361	1.00	67.18	N
ATOM	8155	C	LYS	B	72	67.520	66.018	52.081	1.00	61.67	C
ATOM	8156	O	LYS	B	72	67.118	64.874	52.328	1.00	55.55	O
ATOM	8157	N	PRO	B	73	66.832	67.113	52.405	1.00	61.12	N
ATOM	8158	CA	PRO	B	73	65.439	67.063	52.867	1.00	60.60	C
ATOM	8160	CB	PRO	B	73	65.288	68.391	53.611	1.00	60.05	C
ATOM	8163	CG	PRO	B	73	66.207	69.319	52.903	1.00	59.35	C
ATOM	8166	CD	PRO	B	73	67.353	68.494	52.416	1.00	60.56	C
ATOM	8169	C	PRO	B	73	64.424	66.972	51.718	1.00	60.73	C
ATOM	8170	O	PRO	B	73	64.461	67.815	50.811	1.00	62.12	O
ATOM	8171	N	ILE	B	74	63.528	65.980	51.783	1.00	60.24	N
ATOM	8173	CA	ILE	B	74	62.546	65.683	50.728	1.00	57.67	C
ATOM	8175	CB	ILE	B	74	62.911	64.327	50.037	1.00	58.41	C
ATOM	8177	CG1	ILE	B	74	63.731	64.574	48.779	1.00	61.62	C
ATOM	8180	CD1	ILE	B	74	65.089	65.134	49.033	1.00	63.47	C
ATOM	8184	CG2	ILE	B	74	61.684	63.524	49.619	1.00	56.66	C
ATOM	8188	C	ILE	B	74	61.123	65.620	51.303	1.00	54.66	C
ATOM	8189	O	ILE	B	74	60.806	64.736	52.105	1.00	51.14	O
ATOM	8190	N	VAL	B	75	60.264	66.541	50.876	1.00	49.32	N
ATOM	8192	CA	VAL	B	75	58.846	66.452	51.189	1.00	47.24	C
ATOM	8194	CB	VAL	B	75	58.164	67.817	51.075	1.00	48.31	C
ATOM	8196	CG1	VAL	B	75	56.670	67.695	51.339	1.00	51.13	C
ATOM	8200	CG2	VAL	B	75	58.784	68.815	52.037	1.00	47.75	C
ATOM	8204	C	VAL	B	75	58.171	65.468	50.238	1.00	45.28	C
ATOM	8205	O	VAL	B	75	58.214	65.645	49.029	1.00	46.01	O
ATOM	8206	N	VAL	B	76	57.567	64.428	50.801	1.00	44.39	N
ATOM	8208	CA	VAL	B	76	56.705	63.475	50.084	1.00	41.92	C
ATOM	8210	CB	VAL	B	76	56.867	62.041	50.673	1.00	40.90	C
ATOM	8212	CG1	VAL	B	76	55.926	61.047	50.004	1.00	41.02	C
ATOM	8216	CG2	VAL	B	76	58.315	61.563	50.548	1.00	40.28	C
ATOM	8220	C	VAL	B	76	55.225	63.863	50.196	1.00	41.32	C
ATOM	8221	O	VAL	B	76	54.803	64.384	51.219	1.00	44.48	O
ATOM	8222	N	LEU	B	77	54.448	63.602	49.145	1.00	41.22	N
ATOM	8224	CA	LEU	B	77	53.000	63.814	49.126	1.00	38.54	C
ATOM	8226	CB	LEU	B	77	52.661	64.788	48.018	1.00	37.52	C
ATOM	8229	CG	LEU	B	77	53.454	66.086	47.974	1.00	39.76	C
ATOM	8231	CD1	LEU	B	77	52.864	67.038	46.930	1.00	39.07	C
ATOM	8235	CD2	LEU	B	77	53.492	66.763	49.346	1.00	43.97	C
ATOM	8239	C	LEU	B	77	52.278	62.491	48.855	1.00	40.89	C
ATOM	8240	O	LEU	B	77	52.599	61.810	47.897	1.00	42.81	O
ATOM	8241	N	HIS	B	78	51.290	62.119	49.656	1.00	41.87	N
ATOM	8243	CA	HIS	B	78	50.747	60.772	49.533	1.00	43.43	C
ATOM	8245	CB	HIS	B	78	51.090	59.954	50.771	1.00	39.94	C
ATOM	8248	CG	HIS	B	78	50.870	58.494	50.594	1.00	34.21	C

353/514

Figure 5

ATOM	8249	ND1	HIS	B	78	49.827	57.824	51.199	1.00	39.96
ATOM	8251	CE1	HIS	B	78	49.857	56.550	50.840	1.00	37.49
ATOM	8253	NE2	HIS	B	78	50.892	56.369	50.035	1.00	38.17
ATOM	8255	CD2	HIS	B	78	51.536	57.573	49.857	1.00	35.66
ATOM	8257	C	HIS	B	78	49.239	60.698	49.179	1.00	49.50
ATOM	8258	O	HIS	B	78	48.837	59.935	48.292	1.00	50.06
ATOM	8259	N	GLY	B	79	48.383	61.482	49.810	1.00	52.24
ATOM	8261	CA	GLY	B	79	46.986	61.451	49.366	1.00	55.16
ATOM	8264	C	GLY	B	79	46.750	61.780	47.874	1.00	51.62
ATOM	8265	O	GLY	B	79	47.556	62.494	47.265	1.00	52.73
ATOM	8266	N	TYR	B	80	45.650	61.298	47.282	1.00	45.31
ATOM	8268	CA	TYR	B	80	45.121	61.963	46.079	1.00	45.27
ATOM	8270	CB	TYR	B	80	43.817	61.325	45.534	1.00	47.61
ATOM	8273	CG	TYR	B	80	43.112	62.261	44.536	1.00	49.92
ATOM	8274	CD1	TYR	B	80	43.477	62.278	43.186	1.00	50.04
ATOM	8276	CE1	TYR	B	80	42.870	63.155	42.270	1.00	43.21
ATOM	8278	CZ	TYR	B	80	41.916	64.043	42.708	1.00	44.61
ATOM	8279	OH	TYR	B	80	41.337	64.897	41.801	1.00	39.29
ATOM	8281	CE2	TYR	B	80	41.540	64.065	44.049	1.00	46.47
ATOM	8283	CD2	TYR	B	80	42.140	63.188	44.955	1.00	49.17
ATOM	8285	C	TYR	B	80	44.844	63.449	46.354	1.00	43.35
ATOM	8286	O	TYR	B	80	45.136	64.297	45.519	1.00	36.53
ATOM	8287	N	GLU	B	81	44.236	63.751	47.504	1.00	43.44
ATOM	8289	CA	GLU	B	81	43.877	65.126	47.835	1.00	46.28
ATOM	8291	CB	GLU	B	81	43.038	65.219	49.128	1.00	48.63
ATOM	8294	CG	GLU	B	81	41.583	64.700	49.042	1.00	54.17
ATOM	8297	CD	GLU	B	81	40.690	65.388	47.970	1.00	59.24
ATOM	8298	OE1	GLU	B	81	39.750	64.723	47.448	1.00	54.16
ATOM	8299	OE2	GLU	B	81	40.906	66.590	47.637	1.00	59.01
ATOM	8300	C	GLU	B	81	45.124	66.004	47.904	1.00	45.86
ATOM	8301	O	GLU	B	81	45.123	67.112	47.387	1.00	43.46
ATOM	8302	N	ALA	B	82	46.199	65.490	48.496	1.00	49.51
ATOM	8304	CA	ALA	B	82	47.467	66.244	48.606	1.00	48.70
ATOM	8306	CB	ALA	B	82	48.371	65.588	49.638	1.00	48.45
ATOM	8310	C	ALA	B	82	48.210	66.392	47.257	1.00	48.64
ATOM	8311	O	ALA	B	82	48.783	67.446	46.953	1.00	41.19
ATOM	8312	N	VAL	B	83	48.184	65.341	46.446	1.00	47.33
ATOM	8314	CA	VAL	B	83	48.800	65.401	45.132	1.00	48.02
ATOM	8316	CB	VAL	B	83	48.851	64.014	44.471	1.00	50.42
ATOM	8318	CG1	VAL	B	83	49.353	64.113	43.057	1.00	50.55
ATOM	8322	CG2	VAL	B	83	49.752	63.074	45.262	1.00	51.79
ATOM	8326	C	VAL	B	83	48.020	66.375	44.256	1.00	46.38
ATOM	8327	O	VAL	B	83	48.621	67.175	43.559	1.00	46.10
ATOM	8328	N	LYS	B	84	46.691	66.316	44.320	1.00	46.25
ATOM	8330	CA	LYS	B	84	45.810	67.185	43.520	1.00	49.65
ATOM	8332	CB	LYS	B	84	44.320	66.731	43.627	1.00	54.96
ATOM	8335	CG	LYS	B	84	43.208	67.812	43.748	1.00	56.68
ATOM	8338	CD	LYS	B	84	42.840	68.424	42.404	1.00	61.56
ATOM	8341	CE	LYS	B	84	41.537	69.251	42.474	1.00	64.54
ATOM	8344	NZ	LYS	B	84	41.552	70.262	43.577	1.00	62.32
ATOM	8348	C	LYS	B	84	45.980	68.628	43.921	1.00	47.57
ATOM	8349	O	LYS	B	84	46.148	69.499	43.085	1.00	54.13
ATOM	8350	N	GLU	B	85	45.975	68.880	45.212	1.00	47.57
ATOM	8352	CA	GLU	B	85	46.139	70.229	45.706	1.00	48.70
ATOM	8354	CB	GLU	B	85	46.006	70.248	47.220	1.00	51.82
ATOM	8357	CG	GLU	B	85	45.873	71.641	47.813	1.00	58.25
ATOM	8360	CD	GLU	B	85	45.554	71.607	49.297	1.00	64.65
ATOM	8361	OE1	GLU	B	85	44.759	70.720	49.724	1.00	61.60
ATOM	8362	OE2	GLU	B	85	46.103	72.475	50.023	1.00	70.15
ATOM	8363	C	GLU	B	85	47.478	70.813	45.299	1.00	48.76
ATOM	8364	O	GLU	B	85	47.590	72.004	45.037	1.00	54.33
ATOM	8365	N	ALA	B	86	48.512	69.993	45.254	1.00	48.14
ATOM	8367	CA	ALA	B	86	49.834	70.527	44.971	1.00	49.19
ATOM	8369	CB	ALA	B	86	50.904	69.614	45.527	1.00	50.74
ATOM	8373	C	ALA	B	86	50.022	70.716	43.473	1.00	46.53
ATOM	8374	O	ALA	B	86	50.439	71.768	43.034	1.00	44.32
ATOM	8375	N	LEU	B	87	49.693	69.694	42.697	1.00	46.16
ATOM	8377	CA	LEU	B	87	50.053	69.655	41.281	1.00	44.76
ATOM	8379	CB	LEU	B	87	50.064	68.197	40.782	1.00	46.90
ATOM	8382	CG	LEU	B	87	51.378	67.392	40.650	1.00	45.66
ATOM	8384	CD1	LEU	B	87	52.579	67.999	41.355	1.00	46.69
ATOM	8388	CD2	LEU	B	87	51.174	66.000	41.156	1.00	42.65
ATOM	8392	C	LEU	B	87	49.097	70.511	40.430	1.00	45.37
ATOM	8393	O	LEU	B	87	49.460	71.035	39.382	1.00	43.94
ATOM	8394	N	ILE	B	88	47.867	70.637	40.888	1.00	46.03
ATOM	8396	CA	ILE	B	88	46.881	71.387	40.155	1.00	45.64

[illegible]

354/514

Figure 5

ATOM	8398	CB	ILE	B	88	45.617	70.530	39.945	1.00	42.78	C
ATOM	8400	CG1	ILE	B	88	45.905	69.454	38.886	1.00	43.32	C
ATOM	8403	CD1	ILE	B	88	45.542	68.055	39.332	1.00	44.53	C
ATOM	8407	CG2	ILE	B	88	44.463	71.393	39.480	1.00	44.42	C
ATOM	8411	C	ILE	B	88	46.637	72.731	40.854	1.00	47.91	C
ATOM	8412	O	ILE	B	88	46.984	73.767	40.291	1.00	45.87	O
ATOM	8413	N	ASP	B	89	46.107	72.714	42.082	1.00	51.20	N
ATOM	8415	CA	ASP	B	89	45.730	73.958	42.778	1.00	53.92	C
ATOM	8417	CB	ASP	B	89	45.054	73.687	44.136	1.00	54.81	C
ATOM	8420	CG	ASP	B	89	43.737	72.897	44.013	1.00	57.24	C
ATOM	8421	OD1	ASP	B	89	43.052	72.753	45.054	1.00	57.05	O
ATOM	8422	OD2	ASP	B	89	43.318	72.374	42.949	1.00	55.42	O
ATOM	8423	C	ASP	B	89	46.920	74.892	42.980	1.00	54.53	C
ATOM	8424	O	ASP	B	89	46.800	76.104	42.776	1.00	55.68	O
ATOM	8425	N	LEU	B	90	48.062	74.326	43.364	1.00	54.14	N
ATOM	8427	CA	LEU	B	90	49.300	75.087	43.513	1.00	54.97	C
ATOM	8429	CB	LEU	B	90	49.951	74.772	44.869	1.00	58.33	C
ATOM	8432	CG	LEU	B	90	49.509	75.514	46.150	1.00	59.62	C
ATOM	8434	CD1	LEU	B	90	49.262	76.994	45.894	1.00	61.01	C
ATOM	8438	CD2	LEU	B	90	48.286	74.890	46.790	1.00	60.33	C
ATOM	8442	C	LEU	B	90	50.238	74.726	42.359	1.00	53.04	C
ATOM	8443	O	LEU	B	90	51.432	74.578	42.541	1.00	50.74	O
ATOM	8444	N	GLY	B	91	49.684	74.623	41.158	1.00	53.90	N
ATOM	8446	CA	GLY	B	91	50.375	74.043	40.025	1.00	53.51	C
ATOM	8449	C	GLY	B	91	51.678	74.708	39.673	1.00	53.73	C
ATOM	8450	O	GLY	B	91	52.683	74.033	39.512	1.00	52.79	O
ATOM	8451	N	GLU	B	92	51.674	76.029	39.546	1.00	56.50	N
ATOM	8453	CA	GLU	B	92	52.903	76.743	39.159	1.00	61.29	C
ATOM	8455	CB	GLU	B	92	52.634	78.218	38.780	1.00	62.15	C
ATOM	8458	CG	GLU	B	92	52.621	78.466	37.271	1.00	67.25	C
ATOM	8461	CD	GLU	B	92	54.011	78.389	36.647	1.00	70.58	C
ATOM	8462	OE1	GLU	B	92	54.879	79.159	37.094	1.00	65.54	O
ATOM	8463	OE2	GLU	B	92	54.244	77.560	35.722	1.00	74.60	O
ATOM	8464	C	GLU	B	92	53.972	76.660	40.253	1.00	59.86	C
ATOM	8465	O	GLU	B	92	55.180	76.646	39.970	1.00	60.66	O
ATOM	8466	N	GLU	B	93	53.520	76.589	41.495	1.00	55.16	N
ATOM	8468	CA	GLU	B	93	54.425	76.556	42.626	1.00	55.01	C
ATOM	8470	CB	GLU	B	93	53.646	76.840	43.925	1.00	58.26	C
ATOM	8473	CG	GLU	B	93	53.183	78.302	44.075	1.00	60.47	C
ATOM	8476	CD	GLU	B	93	51.903	78.682	43.296	1.00	64.17	C
ATOM	8477	OE1	GLU	B	93	50.967	77.855	43.094	1.00	64.16	O
ATOM	8478	OE2	GLU	B	93	51.825	79.857	42.884	1.00	66.30	O
ATOM	8479	C	GLU	B	93	55.206	75.224	42.657	1.00	51.10	C
ATOM	8480	O	GLU	B	93	56.395	75.203	42.976	1.00	44.98	O
ATOM	8481	N	PHE	B	94	54.542	74.137	42.261	1.00	46.92	N
ATOM	8483	CA	PHE	B	94	55.160	72.809	42.197	1.00	47.80	C
ATOM	8485	CB	PHE	B	94	54.178	71.765	42.715	1.00	47.70	C
ATOM	8488	CG	PHE	B	94	53.935	71.834	44.183	1.00	51.30	C
ATOM	8489	CD1	PHE	B	94	54.666	71.047	45.050	1.00	53.19	C
ATOM	8491	CE1	PHE	B	94	54.433	71.084	46.408	1.00	54.93	C
ATOM	8493	C2	PHE	B	94	53.456	71.912	46.914	1.00	57.50	C
ATOM	8495	CE2	PHE	B	94	52.707	72.705	46.049	1.00	57.87	C
ATOM	8497	CD2	PHE	B	94	52.948	72.657	44.697	1.00	56.32	C
ATOM	8499	C	PHE	B	94	55.610	72.377	40.789	1.00	45.27	C
ATOM	8500	O	PHE	B	94	55.824	71.195	40.520	1.00	42.31	O
ATOM	8501	N	SER	B	95	55.772	73.327	39.890	1.00	47.16	N
ATOM	8503	CA	SER	B	95	56.136	72.998	38.517	1.00	48.16	C
ATOM	8505	CB	SER	B	95	55.608	74.071	37.556	1.00	46.93	C
ATOM	8508	OG	SER	B	95	56.395	75.235	37.621	1.00	46.97	O
ATOM	8510	C	SER	B	95	57.648	72.811	38.351	1.00	46.91	C
ATOM	8511	O	SER	B	95	58.125	72.590	37.250	1.00	48.84	O
ATOM	8512	N	GLY	B	96	58.402	72.892	39.437	1.00	46.94	N
ATOM	8514	CA	GLY	B	96	59.840	72.765	39.336	1.00	45.76	C
ATOM	8517	C	GLY	B	96	60.233	71.317	39.149	1.00	45.62	C
ATOM	8518	O	GLY	B	96	59.479	70.400	39.510	1.00	43.64	O
ATOM	8519	N	ARG	B	97	61.413	71.124	38.557	1.00	44.75	N
ATOM	8521	CA	ARG	B	97	62.025	69.814	38.399	1.00	41.03	C
ATOM	8523	CB	ARG	B	97	62.625	69.651	37.007	1.00	38.25	C
ATOM	8526	CG	ARG	B	97	63.325	68.311	36.760	1.00	37.54	C
ATOM	8529	CD	ARG	B	97	62.439	67.065	36.945	1.00	40.45	C
ATOM	8532	NE	ARG	B	97	61.468	66.832	35.856	1.00	40.19	N
ATOM	8534	CZ	ARG	B	97	60.263	66.256	36.008	1.00	40.84	C
ATOM	8535	NH1	ARG	B	97	59.487	66.090	34.950	1.00	40.40	N
ATOM	8538	NH2	ARG	B	97	59.804	65.881	37.201	1.00	40.05	N
ATOM	8541	C	ARG	B	97	63.132	69.726	39.416	1.00	45.75	C
ATOM	8542	O	ARG	B	97	64.007	70.603	39.464	1.00	45.52	O

355/514

Figure 5

ATOM	8543	N	GLY	B	98	63.089	68.674	40.225	1.00	45.93	N
ATOM	8545	CA	GLY	B	98	64.120	68.416	41.200	1.00	47.49	C
ATOM	8548	C	GLY	B	98	65.141	67.443	40.657	1.00	50.68	C
ATOM	8549	O	GLY	B	98	64.787	66.450	40.006	1.00	52.96	O
ATOM	8550	N	ILE	B	99	66.410	67.708	40.957	1.00	54.08	N
ATOM	8552	CA	ILE	B	99	67.511	66.914	40.431	1.00	55.14	C
ATOM	8554	CB	ILE	B	99	68.506	67.781	39.655	1.00	56.46	C
ATOM	8556	CG1	ILE	B	99	67.822	69.017	39.028	1.00	58.53	C
ATOM	8559	CD1	ILE	B	99	67.389	68.865	37.579	1.00	59.75	C
ATOM	8563	CG2	ILE	B	99	69.248	66.905	38.637	1.00	55.96	C
ATOM	8567	C	ILE	B	99	68.255	66.282	41.562	1.00	54.19	C
ATOM	8568	O	ILE	B	99	68.785	66.971	42.408	1.00	53.97	O
ATOM	8569	N	PHE	B	100	68.306	64.965	41.571	1.00	56.69	N
ATOM	8571	CA	PHE	B	100	69.102	64.260	42.558	1.00	58.73	C
ATOM	8573	CB	PHE	B	100	68.574	62.839	42.734	1.00	62.63	C
ATOM	8576	CG	PHE	B	100	67.387	62.758	43.633	1.00	61.73	C
ATOM	8577	CD1	PHE	B	100	66.142	62.452	43.129	1.00	59.70	C
ATOM	8579	CE1	PHE	B	100	65.048	62.391	43.962	1.00	59.99	C
ATOM	8581	CZ	PHE	B	100	65.183	62.631	45.306	1.00	60.44	C
ATOM	8583	CE2	PHE	B	100	66.425	62.932	45.827	1.00	64.94	C
ATOM	8585	CD2	PHE	B	100	67.522	62.997	44.989	1.00	63.59	C
ATOM	8587	C	PHE	B	100	70.570	64.250	42.135	1.00	58.27	C
ATOM	8588	O	PHE	B	100	70.885	64.507	40.971	1.00	57.57	O
ATOM	8589	N	PRO	B	101	71.470	63.969	43.075	1.00	58.08	N
ATOM	8590	CA	PRO	B	101	72.906	64.042	42.797	1.00	57.74	C
ATOM	8592	CB	PRO	B	101	73.523	63.403	44.039	1.00	58.55	C
ATOM	8595	CG	PRO	B	101	72.547	63.694	45.124	1.00	58.42	C
ATOM	8598	CD	PRO	B	101	71.210	63.589	44.478	1.00	58.62	C
ATOM	8601	C	PRO	B	101	73.357	63.313	41.529	1.00	56.41	C
ATOM	8602	O	PRO	B	101	74.055	63.916	40.729	1.00	57.23	O
ATOM	8603	N	LEU	B	102	72.958	62.056	41.354	1.00	57.46	N
ATOM	8605	CA	LEU	B	102	73.439	61.224	40.246	1.00	55.62	C
ATOM	8607	CB	LEU	B	102	72.934	59.783	40.393	1.00	54.66	C
ATOM	8610	CG	LEU	B	102	73.523	58.645	39.539	1.00	57.35	C
ATOM	8612	CD1	LEU	B	102	72.615	58.244	38.381	1.00	57.77	C
ATOM	8616	CD2	LEU	B	102	74.907	58.948	38.996	1.00	59.61	C
ATOM	8620	C	LEU	B	102	72.992	61.795	38.921	1.00	58.35	C
ATOM	8621	O	LEU	B	102	73.799	61.961	38.020	1.00	59.23	O
ATOM	8622	N	ALA	B	103	71.699	62.091	38.803	1.00	62.72	N
ATOM	8624	CA	ALA	B	103	71.165	62.762	37.617	1.00	64.41	C
ATOM	8626	CB	ALA	B	103	69.649	63.065	37.792	1.00	63.09	C
ATOM	8630	C	ALA	B	103	71.954	64.060	37.315	1.00	65.51	C
ATOM	8631	O	ALA	B	103	72.328	64.312	36.166	1.00	63.99	O
ATOM	8632	N	GLU	B	104	72.233	64.848	38.357	1.00	65.17	N
ATOM	8634	CA	GLU	B	104	72.877	66.157	38.212	1.00	65.86	C
ATOM	8636	CB	GLU	B	104	72.939	66.864	39.566	1.00	67.87	C
ATOM	8639	CG	GLU	B	104	73.712	68.173	39.600	1.00	71.21	C
ATOM	8642	CD	GLU	B	104	73.544	68.870	40.941	1.00	77.43	C
ATOM	8643	OE1	GLU	B	104	74.206	68.468	41.930	1.00	79.71	O
ATOM	8644	OE2	GLU	B	104	72.723	69.809	41.017	1.00	82.66	O
ATOM	8645	C	GLU	B	104	74.270	66.066	37.624	1.00	63.94	C
ATOM	8646	O	GLU	B	104	74.684	66.955	36.893	1.00	62.72	O
ATOM	8647	N	ARG	B	105	74.981	64.987	37.939	1.00	63.58	N
ATOM	8649	CA	ARG	B	105	76.357	64.785	37.481	1.00	62.76	C
ATOM	8651	CB	ARG	B	105	77.146	64.067	38.576	1.00	64.17	C
ATOM	8654	CG	ARG	B	105	77.170	64.896	39.889	1.00	70.50	C
ATOM	8657	CD	ARG	B	105	78.514	64.969	40.638	1.00	74.07	C
ATOM	8660	NE	ARG	B	105	79.687	64.875	39.758	1.00	74.42	N
ATOM	8662	CZ	ARG	B	105	80.899	64.480	40.144	1.00	73.12	C
ATOM	8663	NH1	ARG	B	105	81.879	64.427	39.249	1.00	75.69	N
ATOM	8666	NH2	ARG	B	105	81.146	64.139	41.404	1.00	71.98	N
ATOM	8669	C	ARG	B	105	76.451	64.049	36.144	1.00	58.19	C
ATOM	8670	O	ARG	B	105	77.475	64.107	35.471	1.00	54.97	O
ATOM	8671	N	ALA	B	106	75.364	63.385	35.762	1.00	58.38	N
ATOM	8673	CA	ALA	B	106	75.288	62.608	34.523	1.00	58.27	C
ATOM	8675	CB	ALA	B	106	74.478	61.343	34.755	1.00	55.28	C
ATOM	8679	C	ALA	B	106	74.693	63.405	33.358	1.00	59.71	C
ATOM	8680	O	ALA	B	106	74.612	62.899	32.245	1.00	57.15	O
ATOM	8681	N	ASN	B	107	74.285	64.648	33.617	1.00	63.18	N
ATOM	8683	CA	ASN	B	107	73.696	65.498	32.593	1.00	64.73	C
ATOM	8685	CB	ASN	B	107	72.267	65.919	32.993	1.00	64.90	C
ATOM	8688	CG	ASN	B	107	71.229	64.802	32.790	1.00	63.80	C
ATOM	8689	OD1	ASN	B	107	70.340	64.624	33.612	1.00	66.57	O
ATOM	8690	ND2	ASN	B	107	71.345	64.058	31.700	1.00	60.76	N
ATOM	8693	C	ASN	B	107	74.565	66.734	32.329	1.00	65.58	C
ATOM	8694	O	ASN	B	107	74.914	67.473	33.250	1.00	61.76	O

356/514

Figure 5

ATOM	8695	N	ARG	B	108	74.924	66.922	31.062	1.00	66.73	N
ATOM	8697	CA	ARG	B	108	75.513	68.169	30.583	1.00	67.03	C
ATOM	8699	CB	ARG	B	108	76.836	67.913	29.849	1.00	69.19	C
ATOM	8702	CG	ARG	B	108	78.040	68.638	30.456	1.00	72.03	C
ATOM	8705	CD	ARG	B	108	78.524	68.012	31.772	1.00	74.54	C
ATOM	8708	NE	ARG	B	108	79.923	67.553	31.828	1.00	72.76	N
ATOM	8710	CZ	ARG	B	108	80.543	66.761	30.946	1.00	68.20	C
ATOM	8711	NH1	ARG	B	108	79.951	66.320	29.841	1.00	67.27	N
ATOM	8714	NH2	ARG	B	108	81.802	66.424	31.169	1.00	65.54	N
ATOM	8717	C	ARG	B	108	74.492	68.766	29.631	1.00	64.70	C
ATOM	8718	O	ARG	B	108	74.184	68.186	28.583	1.00	62.61	O
ATOM	8719	N	GLY	B	109	73.944	69.911	30.013	1.00	62.78	N
ATOM	8721	CA	GLY	B	109	72.911	70.552	29.234	1.00	61.07	C
ATOM	8724	C	GLY	B	109	71.542	69.951	29.517	1.00	62.54	C
ATOM	8725	O	GLY	B	109	71.376	68.736	29.609	1.00	61.64	O
ATOM	8726	N	PHE	B	110	70.555	70.829	29.643	1.00	61.97	N
ATOM	8728	CA	PHE	B	110	69.193	70.441	29.928	1.00	60.68	C
ATOM	8730	CB	PHE	B	110	68.698	71.231	31.142	1.00	63.85	C
ATOM	8733	CG	PHE	B	110	69.535	71.018	32.381	1.00	68.27	C
ATOM	8734	CD1	PHE	B	110	69.763	69.727	32.868	1.00	70.46	C
ATOM	8736	CE1	PHE	B	110	70.527	69.506	34.010	1.00	71.79	C
ATOM	8738	CZ	PHE	B	110	71.084	70.588	34.683	1.00	74.70	C
ATOM	8740	CE2	PHE	B	110	70.878	71.891	34.197	1.00	74.45	C
ATOM	8742	CD2	PHE	B	110	70.108	72.097	33.048	1.00	71.31	C
ATOM	8744	C	PHE	B	110	68.334	70.716	28.705	1.00	58.49	C
ATOM	8745	O	PHE	B	110	68.559	71.692	27.999	1.00	57.85	O
ATOM	8746	N	GLY	B	111	67.367	69.837	28.441	1.00	56.69	N
ATOM	8748	CA	GLY	B	111	66.439	70.020	27.337	1.00	55.45	C
ATOM	8751	C	GLY	B	111	65.038	70.358	27.829	1.00	54.30	C
ATOM	8752	O	GLY	B	111	64.614	71.513	27.893	1.00	52.87	O
ATOM	8753	N	ILE	B	112	64.308	69.324	28.188	1.00	51.77	N
ATOM	8755	CA	ILE	B	112	62.982	69.500	28.715	1.00	51.52	C
ATOM	8757	CB	ILE	B	112	61.965	69.007	27.668	1.00	55.24	C
ATOM	8759	CG1	ILE	B	112	60.541	69.295	28.082	1.00	54.56	C
ATOM	8762	CD1	ILE	B	112	59.607	69.195	26.874	1.00	58.31	C
ATOM	8766	CG2	ILE	B	112	62.116	67.524	27.364	1.00	60.06	C
ATOM	8770	C	ILE	B	112	62.860	68.809	30.070	1.00	49.06	C
ATOM	8771	O	ILE	B	112	62.379	69.421	31.020	1.00	50.28	O
ATOM	8772	N	VAL	B	113	63.348	67.572	30.182	1.00	42.56	N
ATOM	8774	CA	VAL	B	113	63.112	66.770	31.375	1.00	40.55	C
ATOM	8776	CB	VAL	B	113	63.647	65.324	31.226	1.00	42.39	C
ATOM	8778	CG1	VAL	B	113	63.648	64.567	32.568	1.00	43.22	C
ATOM	8782	CG2	VAL	B	113	62.823	64.555	30.220	1.00	42.30	C
ATOM	8786	C	VAL	B	113	63.718	67.411	32.597	1.00	40.56	C
ATOM	8787	O	VAL	B	113	63.111	67.405	33.656	1.00	45.64	O
ATOM	8788	N	PHE	B	114	64.903	67.982	32.450	1.00	42.92	N
ATOM	8790	CA	PHE	B	114	65.674	68.447	33.597	1.00	40.37	C
ATOM	8792	CB	PHE	B	114	67.042	67.764	33.569	1.00	40.85	C
ATOM	8795	CG	PHE	B	114	67.001	66.291	33.921	1.00	41.83	C
ATOM	8796	CD1	PHE	B	114	67.352	65.325	32.987	1.00	42.17	C
ATOM	8798	CE1	PHE	B	114	67.320	63.964	33.317	1.00	43.01	C
ATOM	8800	CZ	PHE	B	114	66.926	63.565	34.585	1.00	41.74	C
ATOM	8802	CE2	PHE	B	114	66.559	64.517	35.517	1.00	42.95	C
ATOM	8804	CD2	PHE	B	114	66.611	65.872	35.192	1.00	41.61	C
ATOM	8806	C	PHE	B	114	65.810	69.966	33.616	1.00	41.28	C
ATOM	8807	O	PHE	B	114	66.559	70.527	34.418	1.00	44.34	O
ATOM	8808	N	SER	B	115	65.082	70.633	32.727	1.00	41.51	N
ATOM	8810	CA	SER	B	115	65.098	72.086	32.642	1.00	39.59	C
ATOM	8812	CB	SER	B	115	64.607	72.546	31.283	1.00	40.58	C
ATOM	8815	OG	SER	B	115	65.690	72.568	30.391	1.00	48.52	O
ATOM	8817	C	SER	B	115	64.208	72.680	33.691	1.00	37.55	C
ATOM	8818	O	SER	B	115	63.420	71.976	34.284	1.00	41.64	O
ATOM	8819	N	ASN	B	116	64.340	73.985	33.896	1.00	38.91	N
ATOM	8821	CA	ASN	B	116	63.526	74.750	34.839	1.00	40.50	C
ATOM	8823	CB	ASN	B	116	64.173	74.718	36.205	1.00	39.49	C
ATOM	8826	CG	ASN	B	116	63.625	73.640	37.069	1.00	37.22	C
ATOM	8827	OD1	ASN	B	116	62.490	73.730	37.529	1.00	45.10	O
ATOM	8828	ND2	ASN	B	116	64.418	72.613	37.318	1.00	33.20	N
ATOM	8831	C	ASN	B	116	63.388	76.205	34.365	1.00	46.53	C
ATOM	8832	O	ASN	B	116	64.140	76.645	33.487	1.00	52.32	O
ATOM	8833	N	GLY	B	117	62.427	76.946	34.917	1.00	49.45	N
ATOM	8835	CA	GLY	B	117	62.234	78.349	34.544	1.00	51.32	C
ATOM	8838	C	GLY	B	117	61.792	78.611	33.108	1.00	53.22	C
ATOM	8839	O	GLY	B	117	61.069	77.805	32.539	1.00	52.14	O
ATOM	8840	N	LYS	B	118	62.217	79.748	32.537	1.00	57.12	N
ATOM	8842	CA	LYS	B	118	61.888	80.128	31.144	1.00	59.62	C

357/514

Figure 5

ATOM	8844	CB	LYS	B	118	62.366	81.560	30.756	1.00	63.73	C
ATOM	8847	CG	LYS	B	118	63.593	82.152	31.508	1.00	72.99	C
ATOM	8850	CD	LYS	B	118	64.932	81.346	31.342	1.00	78.11	C
ATOM	8853	CE	LYS	B	118	65.407	80.560	32.627	1.00	77.59	C
ATOM	8856	NZ	LYS	B	118	65.130	81.220	33.944	1.00	72.75	N
ATOM	8860	C	LYS	B	118	62.410	79.142	30.094	1.00	56.60	C
ATOM	8861	O	LYS	B	118	61.814	79.004	29.021	1.00	56.26	O
ATOM	8862	N	LYS	B	119	63.532	78.489	30.378	1.00	52.76	N
ATOM	8864	CA	LYS	B	119	64.122	77.569	29.417	1.00	52.42	C
ATOM	8866	CB	LYS	B	119	65.567	77.200	29.797	1.00	53.23	C
ATOM	8869	CG	LYS	B	119	66.051	75.948	29.087	1.00	54.28	C
ATOM	8872	CD	LYS	B	119	67.534	75.783	29.096	1.00	56.75	C
ATOM	8875	CE	LYS	B	119	67.914	74.765	28.029	1.00	59.92	C
ATOM	8878	NZ	LYS	B	119	69.264	74.171	28.219	1.00	62.76	N
ATOM	8882	C	LYS	B	119	63.242	76.316	29.264	1.00	50.10	C
ATOM	8883	O	LYS	B	119	63.103	75.779	28.161	1.00	48.06	O
ATOM	8884	N	TRP	B	120	62.665	75.862	30.375	1.00	46.72	N
ATOM	8886	CA	TRP	B	120	61.673	74.790	30.357	1.00	46.48	C
ATOM	8888	CB	TRP	B	120	61.460	74.254	31.777	1.00	47.22	C
ATOM	8891	CG	TRP	B	120	60.293	73.360	31.920	1.00	44.36	C
ATOM	8892	CD1	TRP	B	120	60.155	72.117	31.410	1.00	43.28	C
ATOM	8894	NE1	TRP	B	120	58.930	71.600	31.745	1.00	40.45	N
ATOM	8896	CE2	TRP	B	120	58.256	72.523	32.493	1.00	40.32	C
ATOM	8897	CD2	TRP	B	120	59.089	73.646	32.616	1.00	41.85	C
ATOM	8898	CE3	TRP	B	120	58.628	74.743	33.344	1.00	42.93	C
ATOM	8900	CZ3	TRP	B	120	57.383	74.683	33.902	1.00	44.52	C
ATOM	8902	CH2	TRP	B	120	56.568	73.545	33.750	1.00	41.64	C
ATOM	8904	CZ2	TRP	B	120	56.990	72.464	33.049	1.00	43.44	C
ATOM	8906	C	TRP	B	120	60.343	75.257	29.750	1.00	46.65	C
ATOM	8907	O	TRP	B	120	59.860	74.650	28.809	1.00	47.47	O
ATOM	8908	N	LYS	B	121	59.763	76.329	30.293	1.00	49.24	N
ATOM	8910	CA	LYS	B	121	58.526	76.942	29.768	1.00	52.35	C
ATOM	8912	CB	LYS	B	121	58.348	78.377	30.318	1.00	55.49	C
ATOM	8915	CG	LYS	B	121	57.561	78.483	31.646	1.00	62.55	C
ATOM	8918	CD	LYS	B	121	56.032	78.588	31.409	1.00	70.98	C
ATOM	8921	CE	LYS	B	121	55.185	78.145	32.644	1.00	75.31	C
ATOM	8924	NZ	LYS	B	121	54.013	77.253	32.288	1.00	74.75	N
ATOM	8928	C	LYS	B	121	58.490	76.964	28.227	1.00	50.42	C
ATOM	8929	O	LYS	B	121	57.565	76.415	27.588	1.00	45.74	O
ATOM	8930	N	GLU	B	122	59.517	77.575	27.643	1.00	48.10	N
ATOM	8932	CA	GLU	B	122	59.577	77.768	26.205	1.00	48.69	C
ATOM	8934	CB	GLU	B	122	60.670	78.772	25.822	1.00	50.68	C
ATOM	8937	CG	GLU	B	122	60.248	80.233	25.985	1.00	56.86	C
ATOM	8940	CD	GLU	B	122	61.359	81.221	25.639	1.00	60.05	C
ATOM	8941	OE1	GLU	B	122	62.083	81.659	26.559	1.00	65.69	O
ATOM	8942	OE2	GLU	B	122	61.514	81.564	24.449	1.00	61.06	O
ATOM	8943	C	GLU	B	122	59.761	76.450	25.472	1.00	46.75	C
ATOM	8944	O	GLU	B	122	59.007	76.156	24.560	1.00	52.66	O
ATOM	8945	N	ILE	B	123	60.734	75.640	25.866	1.00	43.11	N
ATOM	8947	CA	ILE	B	123	61.042	74.438	25.089	1.00	41.56	C
ATOM	8949	CB	ILE	B	123	62.398	73.809	25.506	1.00	41.11	C
ATOM	8951	CG1	ILE	B	123	63.540	74.673	24.992	1.00	46.46	C
ATOM	8954	CD1	ILE	B	123	64.865	74.426	25.706	1.00	53.40	C
ATOM	8958	CG2	ILE	B	123	62.577	72.421	24.903	1.00	40.76	C
ATOM	8962	C	ILE	B	123	59.916	73.422	25.179	1.00	39.63	C
ATOM	8963	O	ILE	B	123	59.692	72.646	24.237	1.00	37.21	O
ATOM	8964	N	ARG	B	124	59.212	73.422	26.306	1.00	38.83	N
ATOM	8966	CA	ARG	B	124	58.109	72.494	26.501	1.00	40.70	C
ATOM	8968	CB	ARG	B	124	57.662	72.461	27.953	1.00	38.62	C
ATOM	8971	CG	ARG	B	124	56.449	71.533	28.199	1.00	38.42	C
ATOM	8974	CD	ARG	B	124	55.950	71.586	29.606	1.00	38.68	C
ATOM	8977	NE	ARG	B	124	54.680	70.892	29.764	1.00	39.77	N
ATOM	8979	CZ	ARG	B	124	54.535	69.633	30.170	1.00	38.95	C
ATOM	8980	NH1	ARG	B	124	55.573	68.855	30.442	1.00	44.62	N
ATOM	8983	NH2	ARG	B	124	53.326	69.144	30.311	1.00	41.88	N
ATOM	8986	C	ARG	B	124	56.922	72.873	25.644	1.00	43.40	C
ATOM	8987	O	ARG	B	124	56.217	71.998	25.131	1.00	45.30	O
ATOM	8988	N	ARG	B	125	56.697	74.178	25.535	1.00	46.57	N
ATOM	8990	CA	ARG	B	125	55.582	74.713	24.788	1.00	50.71	C
ATOM	8992	CB	ARG	B	125	55.551	76.227	24.926	1.00	56.64	C
ATOM	8995	CG	ARG	B	125	54.250	76.870	24.558	1.00	64.63	C
ATOM	8998	CD	ARG	B	125	54.283	78.366	24.757	1.00	72.84	C
ATOM	9001	NE	ARG	B	125	54.148	79.052	23.475	1.00	82.96	N
ATOM	9003	CZ	ARG	B	125	53.349	80.094	23.241	1.00	92.12	C
ATOM	9004	NH1	ARG	B	125	52.586	80.624	24.206	1.00	95.40	N
ATOM	9007	NH2	ARG	B	125	53.314	80.621	22.020	1.00	93.51	N

358/514

Figure 5

ATOM	9010	C	ARG	B	125	55.802	74.324	23.356	1.00	48.44	C
ATOM	9011	O	ARG	B	125	54.927	73.718	22.727	1.00	50.75	O
ATOM	9012	N	PHE	B	126	57.002	74.624	22.866	1.00	44.24	N
ATOM	9014	CA	PHE	B	126	57.382	74.297	21.503	1.00	43.51	C
ATOM	9016	CB	PHE	B	126	58.837	74.655	21.216	1.00	44.54	C
ATOM	9019	CG	PHE	B	126	59.280	74.192	19.876	1.00	47.90	C
ATOM	9020	CD1	PHE	B	126	60.006	73.024	19.741	1.00	53.22	C
ATOM	9022	CE1	PHE	B	126	60.377	72.562	18.497	1.00	56.26	C
ATOM	9024	CZ	PHE	B	126	59.995	73.264	17.369	1.00	57.50	C
ATOM	9026	CE2	PHE	B	126	59.242	74.431	17.496	1.00	53.77	C
ATOM	9028	CD2	PHE	B	126	58.888	74.879	18.738	1.00	49.75	C
ATOM	9030	C	PHE	B	126	57.208	72.831	21.187	1.00	41.69	C
ATOM	9031	O	PHE	B	126	56.738	72.480	20.116	1.00	44.77	O
ATOM	9032	N	SER	B	127	57.605	71.979	22.121	1.00	40.26	N
ATOM	9034	CA	SER	B	127	57.544	70.550	21.920	1.00	38.43	C
ATOM	9036	CB	SER	B	127	58.275	69.829	23.037	1.00	40.79	C
ATOM	9039	OG	SER	B	127	59.659	70.095	22.961	1.00	41.98	O
ATOM	9041	C	SER	B	127	56.117	70.078	21.867	1.00	36.47	C
ATOM	9042	O	SER	B	127	55.764	69.282	20.994	1.00	38.41	O
ATOM	9043	N	LEU	B	128	55.288	70.568	22.782	1.00	35.63	N
ATOM	9045	CA	LEU	B	128	53.877	70.179	22.792	1.00	37.68	C
ATOM	9047	CB	LEU	B	128	53.122	70.797	23.961	1.00	35.74	C
ATOM	9050	CG	LEU	B	128	53.235	70.052	25.294	1.00	38.96	C
ATOM	9052	CD1	LEU	B	128	52.569	70.837	26.404	1.00	36.77	C
ATOM	9056	CD2	LEU	B	128	52.623	68.626	25.218	1.00	40.42	C
ATOM	9060	C	LEU	B	128	53.249	70.587	21.472	1.00	40.45	C
ATOM	9061	O	LEU	B	128	52.429	69.860	20.923	1.00	39.55	O
ATOM	9062	N	MET	B	129	53.686	71.721	20.935	1.00	45.07	N
ATOM	9064	CA	MET	B	129	53.198	72.188	19.639	1.00	51.61	C
ATOM	9066	CB	MET	B	129	53.807	73.552	19.279	1.00	59.46	C
ATOM	9069	CG	MET	B	129	52.770	74.606	18.892	1.00	65.11	C
ATOM	9072	SD	MET	B	129	51.915	75.240	20.362	1.00	76.35	S
ATOM	9073	CE	MET	B	129	52.952	76.840	20.807	1.00	70.67	C
ATOM	9077	C	MET	B	129	53.504	71.188	18.527	1.00	50.01	C
ATOM	9078	O	MET	B	129	52.593	70.751	17.808	1.00	49.00	O
ATOM	9079	N	THR	B	130	54.780	70.818	18.392	1.00	46.61	N
ATOM	9081	CA	THR	B	130	55.182	69.838	17.385	1.00	43.27	C
ATOM	9083	CB	THR	B	130	56.696	69.633	17.356	1.00	46.01	C
ATOM	9085	OG1	THR	B	130	57.115	69.028	18.595	1.00	49.65	O
ATOM	9087	CG2	THR	B	130	57.430	70.965	17.254	1.00	46.00	C
ATOM	9091	C	THR	B	130	54.558	68.484	17.608	1.00	37.32	C
ATOM	9092	O	THR	B	130	54.405	67.740	16.662	1.00	38.81	O
ATOM	9093	N	LEU	B	131	54.221	68.138	18.843	1.00	36.65	N
ATOM	9095	CA	LEU	B	131	53.692	66.792	19.110	1.00	38.27	C
ATOM	9097	CB	LEU	B	131	54.035	66.334	20.542	1.00	36.09	C
ATOM	9100	CG	LEU	B	131	55.504	65.921	20.744	1.00	41.85	C
ATOM	9102	CD1	LEU	B	131	55.716	65.331	22.115	1.00	43.81	C
ATOM	9106	CD2	LEU	B	131	56.000	64.933	19.675	1.00	42.73	C
ATOM	9110	C	LEU	B	131	52.187	66.626	18.840	1.00	37.66	C
ATOM	9111	O	LEU	B	131	51.654	65.538	19.020	1.00	36.27	O
ATOM	9112	N	ARG	B	132	51.504	67.696	18.432	1.00	36.65	N
ATOM	9114	CA	ARG	B	132	50.092	67.598	18.101	1.00	37.82	C
ATOM	9116	CB	ARG	B	132	49.513	68.951	17.729	1.00	41.54	C
ATOM	9119	CG	ARG	B	132	49.523	70.018	18.778	1.00	43.31	C
ATOM	9122	CD	ARG	B	132	49.158	71.367	18.199	1.00	48.60	C
ATOM	9125	NE	ARG	B	132	50.094	71.771	17.145	1.00	56.22	N
ATOM	9127	CZ	ARG	B	132	50.108	72.960	16.546	1.00	61.15	C
ATOM	9128	NH1	ARG	B	132	49.210	73.881	16.869	1.00	65.15	N
ATOM	9131	NH2	ARG	B	132	51.027	73.226	15.611	1.00	59.62	N
ATOM	9134	C	ARG	B	132	49.932	66.732	16.873	1.00	36.75	C
ATOM	9135	O	ARG	B	132	50.802	66.721	15.994	1.00	31.55	O
ATOM	9136	N	ASN	B	133	48.793	66.057	16.766	1.00	35.11	N
ATOM	9138	CA	ASN	B	133	48.615	65.107	15.676	1.00	35.81	C
ATOM	9140	CB	ASN	B	133	47.222	64.496	15.691	1.00	33.41	C
ATOM	9143	CG	ASN	B	133	47.131	63.251	14.864	1.00	35.85	C
ATOM	9144	OD1	ASN	B	133	46.077	62.921	14.325	1.00	44.99	O
ATOM	9145	ND2	ASN	B	133	48.223	62.541	14.758	1.00	34.81	N
ATOM	9148	C	ASN	B	133	48.972	65.706	14.307	1.00	36.60	C
ATOM	9149	O	ASN	B	133	49.702	65.088	13.550	1.00	40.28	O
ATOM	9150	N	PHE	B	134	48.515	66.920	14.011	1.00	39.70	N
ATOM	9152	CA	PHE	B	134	48.876	67.599	12.752	1.00	38.87	C
ATOM	9154	CB	PHE	B	134	47.604	67.999	12.007	1.00	36.18	C
ATOM	9157	CG	PHE	B	134	46.716	66.834	11.685	1.00	32.78	C
ATOM	9158	CD1	PHE	B	134	46.855	66.143	10.482	1.00	35.23	C
ATOM	9160	CE1	PHE	B	134	46.041	65.035	10.172	1.00	24.27	C
ATOM	9162	CZ	PHE	B	134	45.101	64.613	11.071	1.00	27.34	C

359/514

Figure 5

ATOM	9164	CE2	PHE	B	134	44.939	65.293	12.283	1.00	31.60	C
ATOM	9166	CD2	PHE	B	134	45.763	66.396	12.589	1.00	34.40	C
ATOM	9168	C	PHE	B	134	49.826	68.792	12.994	1.00	39.63	C
ATOM	9169	O	PHE	B	134	49.881	69.745	12.238	1.00	37.42	O
ATOM	9170	N	GLY	B	135	50.631	68.685	14.037	1.00	45.75	N
ATOM	9172	CA	GLY	B	135	51.556	69.733	14.418	1.00	50.63	C
ATOM	9175	C	GLY	B	135	52.778	69.939	13.527	1.00	56.02	C
ATOM	9176	O	GLY	B	135	53.551	70.868	13.806	1.00	57.17	O
ATOM	9177	N	MET	B	136	52.974	69.120	12.482	1.00	58.49	N
ATOM	9179	CA	MET	B	136	54.105	69.347	11.568	1.00	60.41	C
ATOM	9181	CB	MET	B	136	55.441	69.034	12.264	1.00	60.51	C
ATOM	9184	CG	MET	B	136	55.650	67.600	12.605	1.00	59.61	C
ATOM	9187	SD	MET	B	136	56.773	67.371	13.979	1.00	57.19	S
ATOM	9188	CE	MET	B	136	56.223	65.671	14.396	1.00	50.87	C
ATOM	9192	C	MET	B	136	54.053	68.648	10.196	1.00	61.95	C
ATOM	9193	O	MET	B	136	54.353	67.443	10.053	1.00	61.82	O
ATOM	9194	N	GLY	B	137	53.719	69.448	9.186	1.00	60.97	N
ATOM	9196	CA	GLY	B	137	53.718	68.997	7.815	1.00	62.18	C
ATOM	9199	C	GLY	B	137	52.461	68.208	7.535	1.00	63.45	C
ATOM	9200	O	GLY	B	137	51.559	68.144	8.362	1.00	61.89	O
ATOM	9201	N	LYS	B	138	52.446	67.569	6.373	1.00	66.57	N
ATOM	9203	CA	LYS	B	138	51.267	66.885	5.849	1.00	68.31	C
ATOM	9205	CB	LYS	B	138	51.313	66.867	4.302	1.00	71.90	C
ATOM	9208	CG	LYS	B	138	51.938	68.144	3.641	1.00	74.45	C
ATOM	9211	CD	LYS	B	138	51.345	68.485	2.250	1.00	76.05	C
ATOM	9214	CE	LYS	B	138	52.037	67.736	1.095	1.00	75.07	C
ATOM	9217	NZ	LYS	B	138	51.378	67.865	-0.242	1.00	71.94	N
ATOM	9221	C	LYS	B	138	51.114	65.454	6.385	1.00	65.87	C
ATOM	9222	O	LYS	B	138	50.130	64.784	6.064	1.00	65.95	O
ATOM	9223	N	ARG	B	139	52.091	64.986	7.171	1.00	61.46	N
ATOM	9225	CA	ARG	B	139	52.019	63.676	7.834	1.00	56.16	C
ATOM	9227	CB	ARG	B	139	53.358	62.957	7.696	1.00	58.39	C
ATOM	9230	CG	ARG	B	139	53.275	61.435	7.623	1.00	61.82	C
ATOM	9233	CD	ARG	B	139	54.441	60.800	6.841	1.00	65.46	C
ATOM	9236	NE	ARG	B	139	54.924	59.555	7.450	1.00	66.19	N
ATOM	9238	CZ	ARG	B	139	54.296	58.380	7.386	1.00	64.84	C
ATOM	9239	NH1	ARG	B	139	54.840	57.321	7.974	1.00	57.44	N
ATOM	9242	NH2	ARG	B	139	53.125	58.252	6.744	1.00	68.37	N
ATOM	9245	C	ARG	B	139	51.644	63.809	9.319	1.00	48.50	C
ATOM	9246	O	ARG	B	139	52.277	64.546	10.071	1.00	43.84	O
ATOM	9247	N	SER	B	140	50.603	63.093	9.733	1.00	43.76	N
ATOM	9249	CA	SER	B	140	50.152	63.127	11.126	1.00	37.92	C
ATOM	9251	CB	SER	B	140	48.636	62.777	11.223	1.00	36.86	C
ATOM	9254	OG	SER	B	140	48.323	61.417	10.940	1.00	28.74	O
ATOM	9256	C	SER	B	140	51.008	62.214	12.026	1.00	36.30	C
ATOM	9257	O	SER	B	140	51.664	61.296	11.544	1.00	32.38	O
ATOM	9258	N	ILE	B	141	51.019	62.464	13.331	1.00	35.12	N
ATOM	9260	CA	ILE	B	141	51.642	61.514	14.254	1.00	36.72	C
ATOM	9262	CB	ILE	B	141	51.526	61.963	15.739	1.00	37.75	C
ATOM	9264	CG1	ILE	B	141	52.106	63.359	15.987	1.00	37.41	C
ATOM	9267	CD1	ILE	B	141	53.544	63.477	15.678	1.00	40.53	C
ATOM	9271	CG2	ILE	B	141	52.159	60.906	16.662	1.00	36.17	C
ATOM	9275	C	ILE	B	141	50.929	60.155	14.110	1.00	35.13	C
ATOM	9276	O	ILE	B	141	51.550	59.111	14.160	1.00	40.71	O
ATOM	9277	N	GLU	B	142	49.624	60.169	13.924	1.00	32.27	N
ATOM	9279	CA	GLU	B	142	48.877	58.933	13.922	1.00	34.57	C
ATOM	9281	CB	GLU	B	142	47.354	59.189	13.998	1.00	34.97	C
ATOM	9284	CG	GLU	B	142	46.497	57.945	13.749	1.00	36.94	C
ATOM	9287	CD	GLU	B	142	45.025	58.093	14.105	1.00	39.85	C
ATOM	9288	OE1	GLU	B	142	44.546	59.226	14.352	1.00	44.43	O
ATOM	9289	OE2	GLU	B	142	44.332	57.053	14.135	1.00	43.56	O
ATOM	9290	C	GLU	B	142	49.256	58.090	12.728	1.00	33.02	C
ATOM	9291	O	GLU	B	142	49.160	56.878	12.799	1.00	34.43	O
ATOM	9292	N	ASP	B	143	49.698	58.710	11.641	1.00	37.22	N
ATOM	9294	CA	ASP	B	143	50.132	57.948	10.468	1.00	42.00	C
ATOM	9296	CB	ASP	B	143	50.384	58.845	9.250	1.00	46.83	C
ATOM	9299	CG	ASP	B	143	49.094	59.207	8.509	1.00	57.73	C
ATOM	9300	OD1	ASP	B	143	48.346	58.277	8.101	1.00	60.37	O
ATOM	9301	OD2	ASP	B	143	48.749	60.400	8.282	1.00	67.82	O
ATOM	9302	C	ASP	B	143	51.407	57.235	10.817	1.00	38.42	C
ATOM	9303	O	ASP	B	143	51.504	56.013	10.673	1.00	40.11	O
ATOM	9304	N	ARG	B	144	52.376	58.023	11.285	1.00	33.53	N
ATOM	9306	CA	ARG	B	144	53.658	57.525	11.778	1.00	28.97	C
ATOM	9308	CB	ARG	B	144	54.382	58.627	12.510	1.00	28.17	C
ATOM	9311	CG	ARG	B	144	54.954	59.730	11.624	1.00	25.88	C
ATOM	9314	CD	ARG	B	144	55.770	60.707	12.452	1.00	30.70	C

360/514

Figure 5

ATOM	9317	NE	ARG	B	144	55.701	62.084	11.984	1.00	36.88	N
ATOM	9319	CZ	ARG	B	144	56.326	62.534	10.918	1.00	39.36	C
ATOM	9320	NH1	ARG	B	144	57.059	61.703	10.192	1.00	42.29	N
ATOM	9323	NH2	ARG	B	144	56.211	63.805	10.567	1.00	39.49	N
ATOM	9326	C	ARG	B	144	53.485	56.317	12.701	1.00	30.36	C
ATOM	9327	O	ARG	B	144	54.121	55.299	12.505	1.00	29.10	O
ATOM	9328	N	VAL	B	145	52.574	56.416	13.665	1.00	28.03	N
ATOM	9330	CA	VAL	B	145	52.345	55.340	14.593	1.00	24.69	C
ATOM	9332	CB	VAL	B	145	51.604	55.819	15.837	1.00	23.14	C
ATOM	9334	CG1	VAL	B	145	51.306	54.676	16.760	1.00	20.62	C
ATOM	9338	CG2	VAL	B	145	52.429	56.839	16.559	1.00	24.00	C
ATOM	9342	C	VAL	B	145	51.618	54.206	13.936	1.00	29.04	C
ATOM	9343	O	VAL	B	145	51.844	53.043	14.290	1.00	32.30	O
ATOM	9344	N	GLN	B	146	50.744	54.508	12.982	1.00	33.11	N
ATOM	9346	CA	GLN	B	146	50.059	53.435	12.230	1.00	32.04	C
ATOM	9348	CB	GLN	B	146	48.923	53.975	11.384	1.00	31.48	C
ATOM	9351	CG	GLN	B	146	47.680	54.253	12.209	1.00	37.50	C
ATOM	9354	CD	GLN	B	146	46.565	54.834	11.394	1.00	38.80	C
ATOM	9355	OE1	GLN	B	146	45.550	54.177	11.201	1.00	43.89	O
ATOM	9356	NE2	GLN	B	146	46.754	56.049	10.883	1.00	36.94	N
ATOM	9359	C	GLN	B	146	51.023	52.655	11.357	1.00	32.36	C
ATOM	9360	O	GLN	B	146	50.849	51.452	11.194	1.00	33.03	O
ATOM	9361	N	GLU	B	147	52.051	53.325	10.830	1.00	33.23	N
ATOM	9363	CA	GLU	B	147	53.032	52.657	9.981	1.00	36.76	C
ATOM	9365	CB	GLU	B	147	53.937	53.654	9.235	1.00	38.53	C
ATOM	9368	CG	GLU	B	147	54.961	52.968	8.318	1.00	41.39	C
ATOM	9371	CD	GLU	B	147	56.071	53.895	7.797	1.00	45.64	C
ATOM	9372	OE1	GLU	B	147	56.244	55.016	8.326	1.00	46.78	O
ATOM	9373	OE2	GLU	B	147	56.797	53.491	6.851	1.00	48.95	O
ATOM	9374	C	GLU	B	147	53.870	51.704	10.835	1.00	35.60	C
ATOM	9375	O	GLU	B	147	54.036	50.527	10.489	1.00	31.38	O
ATOM	9376	N	GLU	B	148	54.372	52.222	11.953	1.00	30.23	N
ATOM	9378	CA	GLU	B	148	55.138	51.422	12.894	1.00	31.41	C
ATOM	9380	CB	GLU	B	148	55.559	52.268	14.095	1.00	32.38	C
ATOM	9383	CG	GLU	B	148	56.753	51.699	14.832	1.00	33.68	C
ATOM	9386	CD	GLU	B	148	57.947	51.495	13.918	1.00	38.00	C
ATOM	9387	OE1	GLU	B	148	58.277	52.453	13.156	1.00	37.51	O
ATOM	9388	OE2	GLU	B	148	58.540	50.388	13.963	1.00	33.06	O
ATOM	9389	C	GLU	B	148	54.339	50.223	13.382	1.00	30.12	C
ATOM	9390	O	GLU	B	148	54.854	49.132	13.544	1.00	28.18	O
ATOM	9391	N	ALA	B	149	53.059	50.434	13.593	1.00	33.45	N
ATOM	9393	CA	ALA	B	149	52.183	49.372	14.035	1.00	34.62	C
ATOM	9395	CB	ALA	B	149	50.792	49.919	14.228	1.00	34.50	C
ATOM	9399	C	ALA	B	149	52.168	48.181	13.066	1.00	36.19	C
ATOM	9400	O	ALA	B	149	52.093	47.028	13.501	1.00	30.78	O
ATOM	9401	N	ARG	B	150	52.231	48.429	11.759	1.00	39.61	N
ATOM	9403	CA	ARG	B	150	52.189	47.287	10.843	1.00	44.05	C
ATOM	9405	CB	ARG	B	150	51.397	47.558	9.545	1.00	45.45	C
ATOM	9408	CG	ARG	B	150	51.954	48.548	8.566	1.00	50.36	C
ATOM	9411	CD	ARG	B	150	51.516	48.303	7.102	1.00	52.98	C
ATOM	9414	NE	ARG	B	150	52.660	48.453	6.199	1.00	56.92	N
ATOM	9416	CZ	ARG	B	150	53.187	49.625	5.834	1.00	60.47	C
ATOM	9417	NH1	ARG	B	150	54.241	49.656	5.023	1.00	62.22	N
ATOM	9420	NH2	ARG	B	150	52.665	50.775	6.267	1.00	61.13	N
ATOM	9423	C	ARG	B	150	53.569	46.657	10.624	1.00	44.70	C
ATOM	9424	O	ARG	B	150	53.671	45.455	10.409	1.00	47.87	O
ATOM	9425	N	CYS	B	151	54.623	47.455	10.755	1.00	41.78	N
ATOM	9427	CA	CYS	B	151	55.972	46.934	10.741	1.00	40.86	C
ATOM	9429	CB	CYS	B	151	56.976	48.064	10.770	1.00	41.98	C
ATOM	9432	SG	CYS	B	151	56.862	49.090	9.324	1.00	47.07	S
ATOM	9433	C	CYS	B	151	56.265	46.083	11.943	1.00	43.60	C
ATOM	9434	O	CYS	B	151	57.156	45.248	11.886	1.00	50.81	O
ATOM	9435	N	LEU	B	152	55.578	46.353	13.047	1.00	43.76	N
ATOM	9437	CA	LEU	B	152	55.758	45.625	14.285	1.00	44.36	C
ATOM	9439	CB	LEU	B	152	55.073	46.383	15.422	1.00	46.67	C
ATOM	9442	CG	LEU	B	152	55.385	45.957	16.857	1.00	50.64	C
ATOM	9444	CD1	LEU	B	152	54.762	46.954	17.825	1.00	54.44	C
ATOM	9448	CD2	LEU	B	152	54.876	44.576	17.166	1.00	50.97	C
ATOM	9452	C	LEU	B	152	55.122	44.255	14.105	1.00	43.27	C
ATOM	9453	O	LEU	B	152	55.663	43.246	14.525	1.00	35.31	O
ATOM	9454	N	VAL	B	153	53.957	44.247	13.467	1.00	46.77	N
ATOM	9456	CA	VAL	B	153	53.224	43.019	13.182	1.00	48.40	C
ATOM	9458	CB	VAL	B	153	51.830	43.329	12.576	1.00	46.17	C
ATOM	9460	CG1	VAL	B	153	51.182	42.074	12.024	1.00	43.13	C
ATOM	9464	CG2	VAL	B	153	50.926	43.969	13.610	1.00	45.13	C
ATOM	9468	C	VAL	B	153	54.010	42.175	12.189	1.00	51.42	C

361/514

Figure 5

ATOM	9469	O	VAL	B	153	54.082	40.974	12.324	1.00	52.52	O
ATOM	9470	N	GLU	B	154	54.589	42.823	11.184	1.00	57.00	N
ATOM	9472	CA	GLU	B	154	55.427	42.148	10.202	1.00	58.60	C
ATOM	9474	CB	GLU	B	154	55.874	43.122	9.067	1.00	62.55	C
ATOM	9477	CG	GLU	B	154	54.859	43.259	7.906	1.00	66.72	C
ATOM	9480	CD	GLU	B	154	54.905	44.602	7.135	1.00	72.72	C
ATOM	9481	OE1	GLU	B	154	53.896	44.959	6.468	1.00	76.67	O
ATOM	9482	OE2	GLU	B	154	55.935	45.315	7.166	1.00	71.91	O
ATOM	9483	C	GLU	B	154	56.607	41.481	10.929	1.00	55.96	C
ATOM	9484	O	GLU	B	154	56.989	40.379	10.578	1.00	60.56	O
ATOM	9485	N	GLU	B	155	57.133	42.108	11.978	1.00	53.69	N
ATOM	9487	CA	GLU	B	155	58.260	41.543	12.732	1.00	53.73	C
ATOM	9489	CB	GLU	B	155	59.065	42.645	13.420	1.00	51.29	C
ATOM	9492	CG	GLU	B	155	60.148	43.155	12.486	1.00	58.97	C
ATOM	9495	CD	GLU	B	155	61.487	42.407	12.597	1.00	62.29	C
ATOM	9496	OE1	GLU	B	155	62.014	42.030	11.534	1.00	63.39	O
ATOM	9497	OE2	GLU	B	155	62.029	42.212	13.716	1.00	64.60	O
ATOM	9498	C	GLU	B	155	57.901	40.441	13.731	1.00	52.03	C
ATOM	9499	O	GLU	B	155	58.744	39.608	14.071	1.00	52.47	O
ATOM	9500	N	LEU	B	156	56.665	40.430	14.203	1.00	50.66	N
ATOM	9502	CA	LEU	B	156	56.225	39.358	15.072	1.00	50.62	C
ATOM	9504	CB	LEU	B	156	54.974	39.756	15.874	1.00	49.09	C
ATOM	9507	CG	LEU	B	156	55.118	40.984	16.785	1.00	48.78	C
ATOM	9509	CD1	LEU	B	156	53.795	41.305	17.454	1.00	49.37	C
ATOM	9513	CD2	LEU	B	156	56.196	40.839	17.846	1.00	49.61	C
ATOM	9517	C	LEU	B	156	55.972	38.155	14.184	1.00	49.95	C
ATOM	9518	O	LEU	B	156	56.234	37.021	14.568	1.00	49.39	O
ATOM	9519	N	ARG	B	157	55.500	38.418	12.974	1.00	51.43	N
ATOM	9521	CA	ARG	B	157	55.271	37.370	11.989	1.00	53.04	C
ATOM	9523	CB	ARG	B	157	54.772	37.984	10.690	1.00	50.62	C
ATOM	9526	CG	ARG	B	157	53.512	37.371	10.166	1.00	50.34	C
ATOM	9529	CD	ARG	B	157	53.020	38.074	8.903	1.00	54.97	C
ATOM	9532	NE	ARG	B	157	51.922	39.012	9.144	1.00	54.25	N
ATOM	9534	CZ	ARG	B	157	50.688	38.642	9.503	1.00	53.55	C
ATOM	9535	NH1	ARG	B	157	50.381	37.356	9.707	1.00	53.02	N
ATOM	9538	NH2	ARG	B	157	49.763	39.567	9.700	1.00	50.07	N
ATOM	9541	C	ARG	B	157	56.551	36.561	11.723	1.00	55.90	C
ATOM	9542	O	ARG	B	157	56.510	35.342	11.591	1.00	56.09	O
ATOM	9543	N	LYS	B	158	57.681	37.259	11.670	1.00	59.26	N
ATOM	9545	CA	LYS	B	158	58.986	36.653	11.411	1.00	60.18	C
ATOM	9547	CB	LYS	B	158	60.008	37.742	11.055	1.00	60.07	C
ATOM	9550	CG	LYS	B	158	59.794	38.310	9.669	1.00	60.96	C
ATOM	9553	CD	LYS	B	158	60.481	39.648	9.470	1.00	64.67	C
ATOM	9556	CE	LYS	B	158	60.075	40.267	8.121	1.00	67.18	C
ATOM	9559	NZ	LYS	B	158	60.945	41.423	7.766	1.00	67.52	N
ATOM	9563	C	LYS	B	158	59.532	35.797	12.558	1.00	61.17	C
ATOM	9564	O	LYS	B	158	60.516	35.094	12.366	1.00	65.39	O
ATOM	9565	N	THR	B	159	58.924	35.845	13.741	1.00	59.80	N
ATOM	9567	CA	THR	B	159	59.310	34.917	14.807	1.00	57.38	C
ATOM	9569	CB	THR	B	159	58.875	35.409	16.206	1.00	57.65	C
ATOM	9571	OG1	THR	B	159	57.446	35.516	16.276	1.00	56.26	O
ATOM	9573	CG2	THR	B	159	59.399	36.810	16.485	1.00	55.57	C
ATOM	9577	C	THR	B	159	58.718	33.548	14.547	1.00	57.78	C
ATOM	9578	O	THR	B	159	58.907	32.640	15.346	1.00	56.78	O
ATOM	9579	N	LYS	B	160	57.976	33.423	13.449	1.00	58.54	N
ATOM	9581	CA	LYS	B	160	57.531	32.137	12.917	1.00	61.50	C
ATOM	9583	CB	LYS	B	160	58.751	31.333	12.433	1.00	65.46	C
ATOM	9586	CG	LYS	B	160	59.220	31.689	11.014	1.00	69.73	C
ATOM	9589	CD	LYS	B	160	60.637	31.145	10.710	1.00	72.41	C
ATOM	9592	CE	LYS	B	160	60.639	29.664	10.292	1.00	73.83	C
ATOM	9595	NZ	LYS	B	160	62.017	29.122	9.981	1.00	74.41	N
ATOM	9599	C	LYS	B	160	56.663	31.318	13.896	1.00	60.43	C
ATOM	9600	O	LYS	B	160	56.540	30.105	13.766	1.00	61.44	O
ATOM	9601	N	ALA	B	161	56.039	32.000	14.858	1.00	60.02	N
ATOM	9603	CA	ALA	B	161	55.159	31.374	15.854	1.00	55.48	C
ATOM	9605	CB	ALA	B	161	54.086	30.547	15.190	1.00	53.11	C
ATOM	9609	C	ALA	B	161	55.920	30.542	16.870	1.00	55.99	C
ATOM	9610	O	ALA	B	161	55.332	29.741	17.575	1.00	58.27	O
ATOM	9611	N	SER	B	162	57.226	30.763	16.960	1.00	58.85	N
ATOM	9613	CA	SER	B	162	58.090	30.086	17.922	1.00	58.89	C
ATOM	9615	CB	SER	B	162	59.477	29.840	17.309	1.00	60.03	C
ATOM	9618	OG	SER	B	162	60.297	30.997	17.449	1.00	62.56	O
ATOM	9620	C	SER	B	162	58.248	30.959	19.158	1.00	54.99	C
ATOM	9621	O	SER	B	162	58.069	32.162	19.074	1.00	56.86	O
ATOM	9622	N	PRO	B	163	58.640	30.364	20.286	1.00	54.45	N
ATOM	9623	CA	PRO	B	163	58.812	31.102	21.533	1.00	52.00	C

362/514

Figure 5

ATOM	9625	CB	PRO	B	163	59.467	30.079	22.456	1.00	54.27	C
ATOM	9628	CG	PRO	B	163	59.035	28.786	21.952	1.00	53.17	C
ATOM	9631	CD	PRO	B	163	58.980	28.941	20.464	1.00	54.83	C
ATOM	9634	C	PRO	B	163	59.761	32.235	21.335	1.00	51.37	C
ATOM	9635	O	PRO	B	163	60.692	32.131	20.548	1.00	53.81	O
ATOM	9636	N	CYS	B	164	59.533	33.314	22.060	1.00	53.15	N
ATOM	9638	CA	CYS	B	164	60.316	34.513	21.872	1.00	50.95	C
ATOM	9640	CB	CYS	B	164	59.871	35.216	20.588	1.00	52.39	C
ATOM	9643	SG	CYS	B	164	58.919	36.701	20.857	1.00	44.47	S
ATOM	9644	C	CYS	B	164	60.211	35.421	23.090	1.00	47.26	C
ATOM	9645	O	CYS	B	164	59.233	35.366	23.818	1.00	43.94	O
ATOM	9646	N	ASP	B	165	61.271	36.192	23.313	1.00	44.11	N
ATOM	9648	CA	ASP	B	165	61.343	37.196	24.349	1.00	42.83	C
ATOM	9650	CB	ASP	B	165	62.719	37.235	24.996	1.00	40.07	C
ATOM	9653	CG	ASP	B	165	62.869	38.383	25.988	1.00	44.60	C
ATOM	9654	OD1	ASP	B	165	63.987	38.557	26.541	1.00	38.75	O
ATOM	9655	OD2	ASP	B	165	61.921	39.159	26.298	1.00	46.40	O
ATOM	9656	C	ASP	B	165	61.056	38.531	23.651	1.00	47.24	C
ATOM	9657	O	ASP	B	165	61.902	39.072	22.885	1.00	45.76	O
ATOM	9658	N	PRO	B	166	59.867	39.074	23.924	1.00	45.75	N
ATOM	9659	CA	PRO	B	166	59.384	40.258	23.211	1.00	40.43	C
ATOM	9661	CB	PRO	B	166	57.945	40.376	23.697	1.00	42.06	C
ATOM	9664	CG	PRO	B	166	57.956	39.791	25.037	1.00	42.71	C
ATOM	9667	CD	PRO	B	166	58.898	38.622	24.944	1.00	44.55	C
ATOM	9670	C	PRO	B	166	60.161	41.523	23.533	1.00	32.47	C
ATOM	9671	O	PRO	B	166	60.002	42.504	22.837	1.00	32.76	O
ATOM	9672	N	THR	B	167	61.006	41.512	24.546	1.00	30.17	N
ATOM	9674	CA	THR	B	167	61.677	42.755	24.977	1.00	30.91	C
ATOM	9676	CB	THR	B	167	62.843	42.448	25.902	1.00	27.98	C
ATOM	9678	OG1	THR	B	167	62.401	41.644	27.003	1.00	31.52	O
ATOM	9680	CG2	THR	B	167	63.372	43.721	26.539	1.00	29.26	C
ATOM	9684	C	THR	B	167	62.233	43.615	23.867	1.00	32.69	C
ATOM	9685	O	THR	B	167	62.137	44.828	23.921	1.00	39.39	O
ATOM	9686	N	PHE	B	168	62.851	42.985	22.880	1.00	36.43	N
ATOM	9688	CA	PHE	B	168	63.642	43.706	21.913	1.00	35.88	C
ATOM	9690	CB	PHE	B	168	64.681	42.785	21.253	1.00	38.23	C
ATOM	9693	CG	PHE	B	168	65.364	43.420	20.074	1.00	34.51	C
ATOM	9694	CD1	PHE	B	168	65.065	43.020	18.780	1.00	37.06	C
ATOM	9696	CE1	PHE	B	168	65.674	43.643	17.695	1.00	38.50	C
ATOM	9698	CZ	PHE	B	168	66.590	44.666	17.920	1.00	37.97	C
ATOM	9700	CE2	PHE	B	168	66.881	45.068	19.209	1.00	32.99	C
ATOM	9702	CD2	PHE	B	168	66.262	44.458	20.271	1.00	31.85	C
ATOM	9704	C	PHE	B	168	62.758	44.323	20.840	1.00	34.83	C
ATOM	9705	O	PHE	B	168	62.877	45.510	20.548	1.00	32.07	O
ATOM	9706	N	ILE	B	169	61.930	43.476	20.230	1.00	32.19	N
ATOM	9708	CA	ILE	B	169	60.978	43.876	19.205	1.00	32.87	C
ATOM	9710	CB	ILE	B	169	60.151	42.657	18.794	1.00	33.57	C
ATOM	9712	CG1	ILE	B	169	60.920	41.786	17.799	1.00	37.06	C
ATOM	9715	CD1	ILE	B	169	60.219	40.434	17.439	1.00	36.02	C
ATOM	9719	CG2	ILE	B	169	58.866	43.088	18.163	1.00	37.91	C
ATOM	9723	C	ILE	B	169	60.034	44.979	19.716	1.00	32.65	C
ATOM	9724	O	ILE	B	169	59.821	45.990	19.064	1.00	31.29	O
ATOM	9725	N	LEU	B	170	59.459	44.754	20.885	1.00	33.03	N
ATOM	9727	CA	LEU	B	170	58.642	45.749	21.553	1.00	32.36	C
ATOM	9729	CB	LEU	B	170	57.998	45.126	22.777	1.00	33.67	C
ATOM	9732	CG	LEU	B	170	56.534	44.747	22.712	1.00	36.61	C
ATOM	9734	CD1	LEU	B	170	56.067	44.385	21.322	1.00	38.24	C
ATOM	9738	CD2	LEU	B	170	56.306	43.599	23.663	1.00	38.59	C
ATOM	9742	C	LEU	B	170	59.406	46.991	21.985	1.00	31.49	C
ATOM	9743	O	LEU	B	170	58.800	47.984	22.276	1.00	39.89	O
ATOM	9744	N	GLY	B	171	60.717	46.944	22.092	1.00	32.67	N
ATOM	9746	CA	GLY	B	171	61.472	48.155	22.353	1.00	32.89	C
ATOM	9749	C	GLY	B	171	61.707	48.921	21.061	1.00	34.33	C
ATOM	9750	O	GLY	B	171	61.864	50.148	21.035	1.00	30.48	O
ATOM	9751	N	CYS	B	172	61.766	48.177	19.971	1.00	35.93	N
ATOM	9753	CA	CYS	B	172	62.158	48.756	18.696	1.00	40.19	C
ATOM	9755	CB	CYS	B	172	62.360	47.654	17.635	1.00	43.64	C
ATOM	9758	SG	CYS	B	172	63.928	46.762	17.773	1.00	45.69	S
ATOM	9759	C	CYS	B	172	61.084	49.735	18.254	1.00	38.35	C
ATOM	9760	O	CYS	B	172	61.396	50.811	17.796	1.00	33.84	O
ATOM	9761	N	ALA	B	173	59.820	49.352	18.456	1.00	34.64	N
ATOM	9763	CA	ALA	B	173	58.686	50.073	17.926	1.00	31.50	C
ATOM	9765	CB	ALA	B	173	57.421	49.263	18.133	1.00	33.46	C
ATOM	9769	C	ALA	B	173	58.530	51.497	18.472	1.00	31.08	C
ATOM	9770	O	ALA	B	173	58.388	52.435	17.695	1.00	27.21	O
ATOM	9771	N	PRO	B	174	58.545	51.673	19.788	1.00	28.92	N

363/514

Figure 5

ATOM	9772	CA	PRO B 174	58.459	53.011	20.354	1.00	27.83	C
ATOM	9774	CB	PRO B 174	58.371	52.755	21.864	1.00	28.29	C
ATOM	9777	CG	PRO B 174	58.131	51.327	22.043	1.00	28.37	C
ATOM	9780	CD	PRO B 174	58.611	50.640	20.827	1.00	28.79	C
ATOM	9783	C	PRO B 174	59.678	53.875	20.006	1.00	29.92	C
ATOM	9784	O	PRO B 174	59.578	55.081	19.797	1.00	30.02	O
ATOM	9785	N	CYS B 175	60.840	53.269	19.950	1.00	32.90	N
ATOM	9787	CA	CYS B 175	62.029	54.030	19.602	1.00	38.05	C
ATOM	9789	CB	CYS B 175	63.251	53.143	19.677	1.00	39.99	C
ATOM	9792	SG	CYS B 175	64.745	54.093	19.469	1.00	43.27	S
ATOM	9793	C	CYS B 175	61.949	54.611	18.191	1.00	37.12	C
ATOM	9794	O	CYS B 175	62.344	55.769	17.936	1.00	36.00	O
ATOM	9795	N	ASN B 176	61.459	53.779	17.284	1.00	33.45	N
ATOM	9797	CA	ASN B 176	61.269	54.146	15.888	1.00	34.90	C
ATOM	9799	CB	ASN B 176	60.894	52.893	15.077	1.00	37.22	C
ATOM	9802	CG	ASN B 176	61.768	52.685	13.845	1.00	37.79	C
ATOM	9803	OD1	ASN B 176	62.683	53.463	13.570	1.00	38.53	C
ATOM	9804	ND2	ASN B 176	61.457	51.636	13.081	1.00	32.25	O
ATOM	9807	C	ASN B 176	60.191	55.227	15.709	1.00	32.54	N
ATOM	9808	O	ASN B 176	60.283	56.061	14.802	1.00	30.28	C
ATOM	9809	N	VAL B 177	59.175	55.220	16.572	1.00	32.48	N
ATOM	9811	CA	VAL B 177	58.142	56.249	16.511	1.00	29.47	C
ATOM	9813	CB	VAL B 177	56.965	56.018	17.489	1.00	27.20	C
ATOM	9815	CG1	VAL B 177	56.062	57.236	17.560	1.00	32.51	C
ATOM	9819	CG2	VAL B 177	56.128	54.862	17.046	1.00	25.70	C
ATOM	9823	C	VAL B 177	58.818	57.571	16.773	1.00	29.44	C
ATOM	9824	O	VAL B 177	58.583	58.522	16.041	1.00	27.49	O
ATOM	9825	N	ILE B 178	59.683	57.625	17.789	1.00	33.14	N
ATOM	9827	CA	ILE B 178	60.422	58.858	18.080	1.00	32.91	C
ATOM	9829	CB	ILE B 178	61.193	58.805	19.431	1.00	33.73	C
ATOM	9831	CG1	ILE B 178	60.278	59.113	20.603	1.00	37.05	C
ATOM	9834	CD1	ILE B 178	59.409	57.987	20.969	1.00	48.50	C
ATOM	9838	CG2	ILE B 178	62.246	59.899	19.482	1.00	35.49	C
ATOM	9842	C	ILE B 178	61.335	59.228	16.905	1.00	29.84	C
ATOM	9843	O	ILE B 178	61.436	60.388	16.557	1.00	29.31	O
ATOM	9844	N	CYS B 179	61.955	58.241	16.266	1.00	34.56	N
ATOM	9846	CA	CYS B 179	62.827	58.488	15.097	1.00	35.27	C
ATOM	9848	CB	CYS B 179	63.419	57.180	14.555	1.00	36.73	C
ATOM	9851	SG	CYS B 179	64.699	56.413	15.579	1.00	43.67	S
ATOM	9852	C	CYS B 179	62.082	59.177	13.963	1.00	31.48	C
ATOM	9853	O	CYS B 179	62.599	60.115	13.341	1.00	29.79	O
ATOM	9854	N	SER B 180	60.864	58.707	13.708	1.00	30.22	N
ATOM	9856	CA	SER B 180	60.041	59.258	12.656	1.00	29.06	C
ATOM	9858	CB	SER B 180	58.774	58.457	12.486	1.00	30.56	C
ATOM	9861	OG	SER B 180	58.241	58.698	11.204	1.00	33.62	O
ATOM	9863	C	SER B 180	59.729	60.692	12.993	1.00	34.26	C
ATOM	9864	O	SER B 180	59.990	61.588	12.190	1.00	38.73	O
ATOM	9865	N	ILE B 181	59.239	60.930	14.210	1.00	35.30	N
ATOM	9867	CA	ILE B 181	58.930	62.287	14.663	1.00	32.27	C
ATOM	9869	CB	ILE B 181	58.380	62.272	16.097	1.00	33.41	C
ATOM	9871	CG1	ILE B 181	56.951	61.724	16.123	1.00	35.78	C
ATOM	9874	CD1	ILE B 181	56.555	61.116	17.490	1.00	34.35	C
ATOM	9878	CG2	ILE B 181	58.413	63.665	16.712	1.00	32.36	C
ATOM	9882	C	ILE B 181	60.125	63.235	14.595	1.00	34.08	C
ATOM	9883	O	ILE B 181	59.940	64.413	14.287	1.00	34.63	O
ATOM	9884	N	ILE B 182	61.336	62.766	14.895	1.00	35.33	N
ATOM	9886	CA	ILE B 182	62.491	63.686	14.918	1.00	37.31	C
ATOM	9888	CB	ILE B 182	63.571	63.282	15.949	1.00	38.28	C
ATOM	9890	CG1	ILE B 182	62.958	62.906	17.321	1.00	38.37	C
ATOM	9893	CD1	ILE B 182	63.119	63.900	18.383	1.00	38.80	C
ATOM	9897	CG2	ILE B 182	64.614	64.386	16.022	1.00	34.11	C
ATOM	9901	C	ILE B 182	63.148	63.822	13.542	1.00	38.37	C
ATOM	9902	O	ILE B 182	63.472	64.938	13.138	1.00	37.64	O
ATOM	9903	N	PHE B 183	63.314	62.695	12.839	1.00	38.93	N
ATOM	9905	CA	PHE B 183	64.051	62.616	11.556	1.00	42.19	C
ATOM	9907	CB	PHE B 183	64.936	61.351	11.561	1.00	42.12	C
ATOM	9910	CG	PHE B 183	65.813	61.213	12.772	1.00	38.57	C
ATOM	9911	CD1	PHE B 183	66.123	59.956	13.262	1.00	37.36	C
ATOM	9913	CE1	PHE B 183	66.921	59.803	14.385	1.00	40.00	C
ATOM	9915	CZ	PHE B 183	67.442	60.920	15.024	1.00	39.73	C
ATOM	9917	CE2	PHE B 183	67.155	62.190	14.532	1.00	40.54	C
ATOM	9919	CD2	PHE B 183	66.339	62.331	13.411	1.00	38.17	C
ATOM	9921	C	PHE B 183	63.219	62.584	10.242	1.00	43.73	C
ATOM	9922	O	PHE B 183	63.783	62.623	9.162	1.00	44.42	O
ATOM	9923	N	HIS B 184	61.898	62.540	10.361	1.00	49.53	N
ATOM	9925	CA	HIS B 184	60.893	62.295	9.284	1.00	55.63	C

364/514

Figure 5

ATOM	9927	CB	HIS	B	184	60.946	63.195	8.002	1.00	60.11	C
ATOM	9930	CG	HIS	B	184	59.620	63.225	7.254	1.00	66.64	C
ATOM	9931	ND1	HIS	B	184	59.418	63.879	6.037	1.00	69.03	N
ATOM	9933	CE1	HIS	B	184	58.152	63.697	5.640	1.00	75.03	C
ATOM	9935	NE2	HIS	B	184	57.528	62.952	6.557	1.00	76.75	N
ATOM	9937	CD2	HIS	B	184	58.417	62.658	7.575	1.00	72.12	C
ATOM	9939	C	HIS	B	184	60.727	60.856	8.853	1.00	57.03	C
ATOM	9940	O	HIS	B	184	59.665	60.481	8.366	1.00	62.81	O
ATOM	9941	N	LYS	B	185	61.729	60.025	9.005	1.00	56.92	N
ATOM	9943	CA	LYS	B	185	61.490	58.655	8.626	1.00	57.43	C
ATOM	9945	CB	LYS	B	185	62.073	58.360	7.223	1.00	62.75	C
ATOM	9948	CG	LYS	B	185	63.294	59.205	6.756	1.00	63.80	C
ATOM	9951	CD	LYS	B	185	63.518	59.052	5.219	1.00	65.84	C
ATOM	9954	CE	LYS	B	185	64.924	58.577	4.826	1.00	67.35	C
ATOM	9957	NZ	LYS	B	185	65.374	57.359	5.570	1.00	69.31	N
ATOM	9961	C	LYS	B	185	61.963	57.668	9.683	1.00	51.61	C
ATOM	9962	O	LYS	B	185	62.976	57.869	10.350	1.00	50.70	O
ATOM	9963	N	ARG	B	186	61.185	56.608	9.838	1.00	45.00	N
ATOM	9965	CA	ARG	B	186	61.606	55.445	10.612	1.00	42.59	C
ATOM	9967	CB	ARG	B	186	60.452	54.471	10.731	1.00	39.06	C
ATOM	9970	CG	ARG	B	186	60.016	53.898	9.420	1.00	33.68	C
ATOM	9973	CD	ARG	B	186	58.869	52.985	9.523	1.00	33.15	C
ATOM	9976	NE	ARG	B	186	59.086	51.916	10.488	1.00	39.50	N
ATOM	9978	CZ	ARG	B	186	59.765	50.788	10.248	1.00	45.27	C
ATOM	9979	NH1	ARG	B	186	60.303	50.548	9.058	1.00	44.16	N
ATOM	9982	NH2	ARG	B	186	59.888	49.873	11.213	1.00	47.73	N
ATOM	9985	C	ARG	B	186	62.773	54.700	9.971	1.00	44.47	C
ATOM	9986	O	ARG	B	186	63.054	54.871	8.798	1.00	46.44	O
ATOM	9987	N	PHE	B	187	63.428	53.854	10.754	1.00	46.47	N
ATOM	9989	CA	PHE	B	187	64.520	53.012	10.285	1.00	46.93	C
ATOM	9991	CB	PHE	B	187	65.669	52.993	11.296	1.00	47.51	C
ATOM	9994	CG	PHE	B	187	66.362	54.328	11.469	1.00	44.36	C
ATOM	9995	CD1	PHE	B	187	66.129	55.112	12.598	1.00	40.73	C
ATOM	9997	CE1	PHE	B	187	66.771	56.341	12.776	1.00	43.91	C
ATOM	9999	CZ	PHE	B	187	67.659	56.793	11.823	1.00	47.64	C
ATOM	10001	CE2	PHE	B	187	67.906	56.008	10.684	1.00	49.14	C
ATOM	10003	CD2	PHE	B	187	67.260	54.775	10.524	1.00	43.78	C
ATOM	10005	C	PHE	B	187	63.998	51.611	10.136	1.00	49.10	C
ATOM	10006	O	PHE	B	187	62.934	51.299	10.624	1.00	54.23	O
ATOM	10007	N	ASP	B	188	64.749	50.765	9.454	1.00	52.94	N
ATOM	10009	CA	ASP	B	188	64.465	49.338	9.417	1.00	53.84	C
ATOM	10011	CB	ASP	B	188	65.182	48.691	8.220	1.00	55.99	C
ATOM	10014	CG	ASP	B	188	64.720	47.273	7.958	1.00	57.31	C
ATOM	10015	OD1	ASP	B	188	65.232	46.365	8.636	1.00	59.11	O
ATOM	10016	OD2	ASP	B	188	63.851	46.965	7.106	1.00	60.31	O
ATOM	10017	C	ASP	B	188	64.988	48.775	10.727	1.00	52.84	C
ATOM	10018	O	ASP	B	188	66.010	49.250	11.222	1.00	51.71	O
ATOM	10019	N	TYR	B	189	64.318	47.768	11.289	1.00	52.32	N
ATOM	10021	CA	TYR	B	189	64.717	47.228	12.599	1.00	53.81	C
ATOM	10023	CB	TYR	B	189	63.734	46.133	13.093	1.00	54.82	C
ATOM	10026	CG	TYR	B	189	62.330	46.584	13.551	1.00	55.56	C
ATOM	10027	CD1	TYR	B	189	61.404	45.662	14.015	1.00	57.32	C
ATOM	10029	CE1	TYR	B	189	60.122	46.054	14.425	1.00	54.67	C
ATOM	10031	CZ	TYR	B	189	59.771	47.383	14.386	1.00	52.16	C
ATOM	10032	OH	TYR	B	189	58.512	47.810	14.784	1.00	46.92	O
ATOM	10034	CE2	TYR	B	189	60.679	48.303	13.944	1.00	51.65	C
ATOM	10036	CD2	TYR	B	189	61.940	47.911	13.534	1.00	55.63	C
ATOM	10038	C	TYR	B	189	66.159	46.681	12.625	1.00	56.45	C
ATOM	10039	O	TYR	B	189	66.689	46.388	13.702	1.00	58.81	O
ATOM	10040	N	LYS	B	190	66.794	46.555	11.456	1.00	62.37	N
ATOM	10042	CA	LYS	B	190	68.153	45.990	11.334	1.00	63.41	C
ATOM	10044	CB	LYS	B	190	68.138	44.823	10.340	1.00	65.36	C
ATOM	10047	CG	LYS	B	190	67.416	43.567	10.878	1.00	69.62	C
ATOM	10050	CD	LYS	B	190	67.528	42.369	9.925	1.00	73.42	C
ATOM	10053	CE	LYS	B	190	66.737	42.573	8.608	1.00	77.24	C
ATOM	10056	NZ	LYS	B	190	67.232	43.697	7.716	1.00	78.73	N
ATOM	10060	C	LYS	B	190	69.243	47.008	10.953	1.00	58.78	C
ATOM	10061	O	LYS	B	190	70.419	46.747	11.169	1.00	59.14	O
ATOM	10062	N	ASP	B	191	68.851	48.146	10.384	1.00	55.84	N
ATOM	10064	CA	ASP	B	191	69.743	49.300	10.158	1.00	54.65	C
ATOM	10066	CB	ASP	B	191	68.904	50.544	9.965	1.00	55.00	C
ATOM	10069	CG	ASP	B	191	69.604	51.589	9.167	1.00	59.30	C
ATOM	10070	OD1	ASP	B	191	69.228	51.741	7.989	1.00	60.80	O
ATOM	10071	OD2	ASP	B	191	70.523	52.312	9.624	1.00	63.08	O
ATOM	10072	C	ASP	B	191	70.721	49.560	11.299	1.00	56.28	C
ATOM	10073	O	ASP	B	191	70.339	49.539	12.456	1.00	61.03	O

365/514

Figure 5

ATOM	10074	N	GLN	B	192	71.987	49.806	10.981	1.00	57.64	N
ATOM	10076	CA	GLN	B	192	73.036	49.808	12.009	1.00	53.38	C
ATOM	10078	CB	GLN	B	192	74.435	49.614	11.388	1.00	52.50	C
ATOM	10081	CG	GLN	B	192	75.549	49.314	12.399	1.00	51.83	C
ATOM	10084	CD	GLN	B	192	75.289	48.046	13.227	1.00	52.20	C
ATOM	10085	OE1	GLN	B	192	75.073	46.966	12.671	1.00	47.17	O
ATOM	10086	NE2	GLN	B	192	75.302	48.187	14.556	1.00	49.48	N
ATOM	10089	C	GLN	B	192	73.001	51.073	12.849	1.00	50.21	C
ATOM	10090	O	GLN	B	192	73.327	51.026	14.028	1.00	48.50	O
ATOM	10091	N	GLN	B	193	72.635	52.195	12.230	1.00	48.66	N
ATOM	10093	CA	GLN	B	193	72.377	53.448	12.950	1.00	49.35	C
ATOM	10095	CB	GLN	B	193	71.736	54.484	12.031	1.00	51.02	C
ATOM	10098	CG	GLN	B	193	72.527	54.981	10.860	1.00	55.29	C
ATOM	10101	CD	GLN	B	193	71.647	55.868	9.985	1.00	58.72	C
ATOM	10102	OE1	GLN	B	193	71.407	57.047	10.307	1.00	53.68	O
ATOM	10103	NE2	GLN	B	193	71.114	55.286	8.912	1.00	61.93	N
ATOM	10106	C	GLN	B	193	71.363	53.239	14.080	1.00	47.76	C
ATOM	10107	O	GLN	B	193	71.487	53.811	15.172	1.00	46.05	O
ATOM	10108	N	PHE	B	194	70.337	52.448	13.764	1.00	42.69	N
ATOM	10110	CA	PHE	B	194	69.189	52.250	14.615	1.00	40.17	C
ATOM	10112	CB	PHE	B	194	68.069	51.577	13.831	1.00	40.70	C
ATOM	10115	CG	PHE	B	194	66.850	51.315	14.635	1.00	38.62	C
ATOM	10116	CD1	PHE	B	194	66.351	50.034	14.754	1.00	37.53	C
ATOM	10118	CE1	PHE	B	194	65.211	49.792	15.517	1.00	42.49	C
ATOM	10120	CZ	PHE	B	194	64.580	50.841	16.181	1.00	38.94	C
ATOM	10122	CE2	PHE	B	194	65.082	52.118	16.078	1.00	35.46	C
ATOM	10124	CD2	PHE	B	194	66.209	52.355	15.302	1.00	37.41	C
ATOM	10126	C	PHE	B	194	69.565	51.419	15.800	1.00	40.37	C
ATOM	10127	O	PHE	B	194	69.329	51.822	16.935	1.00	43.30	O
ATOM	10128	N	LEU	B	195	70.161	50.265	15.531	1.00	46.26	N
ATOM	10130	CA	LEU	B	195	70.672	49.365	16.572	1.00	46.33	C
ATOM	10132	CB	LEU	B	195	71.290	48.111	15.955	1.00	47.65	C
ATOM	10135	CG	LEU	B	195	70.283	47.159	15.297	1.00	50.96	C
ATOM	10137	CD1	LEU	B	195	70.909	46.347	14.183	1.00	50.06	C
ATOM	10141	CD2	LEU	B	195	69.691	46.225	16.336	1.00	54.71	C
ATOM	10145	C	LEU	B	195	71.672	50.021	17.521	1.00	45.71	C
ATOM	10146	O	LEU	B	195	71.667	49.688	18.704	1.00	42.41	O
ATOM	10147	N	ASN	B	196	72.505	50.955	17.037	1.00	43.68	N
ATOM	10149	CA	ASN	B	196	73.424	51.666	17.943	1.00	43.95	C
ATOM	10151	CB	ASN	B	196	74.460	52.542	17.226	1.00	43.81	C
ATOM	10154	CG	ASN	B	196	75.335	51.766	16.271	1.00	43.09	C
ATOM	10155	OD1	ASN	B	196	75.754	52.331	15.265	1.00	39.57	O
ATOM	10156	ND2	ASN	B	196	75.596	50.465	16.555	1.00	35.53	N
ATOM	10159	C	ASN	B	196	72.658	52.537	18.915	1.00	42.72	C
ATOM	10160	O	ASN	B	196	72.872	52.447	20.101	1.00	47.81	O
ATOM	10161	N	LEU	B	197	71.772	53.385	18.406	1.00	44.70	N
ATOM	10163	CA	LEU	B	197	70.851	54.170	19.241	1.00	42.28	C
ATOM	10165	CB	LEU	B	197	69.856	54.874	18.333	1.00	44.60	C
ATOM	10168	CG	LEU	B	197	68.889	55.870	18.962	1.00	46.86	C
ATOM	10170	CD1	LEU	B	197	69.632	56.766	19.936	1.00	49.87	C
ATOM	10174	CD2	LEU	B	197	68.175	56.690	17.855	1.00	47.16	C
ATOM	10178	C	LEU	B	197	70.082	53.304	20.252	1.00	42.14	C
ATOM	10179	O	LEU	B	197	69.944	53.629	21.419	1.00	37.66	O
ATOM	10180	N	MET	B	198	69.586	52.183	19.783	1.00	43.62	N
ATOM	10182	CA	MET	B	198	68.851	51.249	20.617	1.00	46.98	C
ATOM	10184	CB	MET	B	198	68.424	50.097	19.720	1.00	50.65	C
ATOM	10187	CG	MET	B	198	67.266	49.325	20.175	1.00	55.77	C
ATOM	10190	SD	MET	B	198	65.834	50.289	19.990	1.00	57.78	S
ATOM	10191	CE	MET	B	198	65.287	50.356	21.797	1.00	59.60	C
ATOM	10195	C	MET	B	198	69.729	50.722	21.757	1.00	48.28	C
ATOM	10196	O	MET	B	198	69.292	50.585	22.907	1.00	45.96	O
ATOM	10197	N	GLU	B	199	70.981	50.432	21.401	1.00	52.28	N
ATOM	10199	CA	GLU	B	199	72.011	49.906	22.302	1.00	51.61	C
ATOM	10201	CB	GLU	B	199	73.286	49.637	21.478	1.00	54.69	C
ATOM	10204	CG	GLU	B	199	74.449	48.933	22.167	1.00	58.54	C
ATOM	10207	CD	GLU	B	199	75.654	48.820	21.236	1.00	62.89	C
ATOM	10208	OE1	GLU	B	199	75.563	48.093	20.208	1.00	61.77	O
ATOM	10209	OE2	GLU	B	199	76.684	49.479	21.521	1.00	64.92	O
ATOM	10210	C	GLU	B	199	72.312	50.877	23.452	1.00	47.98	C
ATOM	10211	O	GLU	B	199	72.321	50.481	24.613	1.00	49.86	O
ATOM	10212	N	LYS	B	200	72.538	52.143	23.120	1.00	40.25	N
ATOM	10214	CA	LYS	B	200	72.943	53.146	24.093	1.00	40.34	C
ATOM	10216	CB	LYS	B	200	73.470	54.390	23.360	1.00	40.87	C
ATOM	10219	CG	LYS	B	200	74.723	54.152	22.509	1.00	42.79	C
ATOM	10222	CD	LYS	B	200	76.033	54.168	23.349	1.00	47.37	C
ATOM	10225	CE	LYS	B	200	77.213	53.410	22.702	1.00	47.87	C

366/514

Figure 5

ATOM	10228	NZ	LYS	B	200	76.789	52.543	21.552	1.00	52.55	N
ATOM	10232	C	LYS	B	200	71.790	53.524	25.037	1.00	40.17	C
ATOM	10233	O	LYS	B	200	72.007	53.836	26.212	1.00	38.41	O
ATOM	10234	N	LEU	B	201	70.566	53.514	24.505	1.00	39.59	N
ATOM	10236	CA	LEU	B	201	69.377	53.738	25.301	1.00	36.90	C
ATOM	10238	CB	LEU	B	201	68.140	53.864	24.416	1.00	38.45	C
ATOM	10241	CG	LEU	B	201	68.016	55.155	23.595	1.00	42.57	C
ATOM	10243	CD1	LEU	B	201	66.815	55.081	22.692	1.00	41.52	C
ATOM	10247	CD2	LEU	B	201	67.896	56.412	24.451	1.00	45.63	C
ATOM	10251	C	LEU	B	201	69.190	52.590	26.282	1.00	36.70	C
ATOM	10252	O	LEU	B	201	68.923	52.830	27.438	1.00	29.07	O
ATOM	10253	N	ASN	B	202	69.343	51.345	25.826	1.00	40.44	N
ATOM	10255	CA	ASN	B	202	69.159	50.179	26.703	1.00	41.25	C
ATOM	10257	CB	ASN	B	202	69.150	48.886	25.920	1.00	42.42	C
ATOM	10260	CG	ASN	B	202	67.922	48.706	25.108	1.00	43.17	C
ATOM	10261	OD1	ASN	B	202	67.921	47.881	24.206	1.00	42.47	O
ATOM	10262	ND2	ASN	B	202	66.860	49.460	25.401	1.00	42.86	N
ATOM	10265	C	ASN	B	202	70.241	50.044	27.741	1.00	43.58	C
ATOM	10266	O	ASN	B	202	69.984	49.579	28.842	1.00	47.35	O
ATOM	10267	N	GLU	B	203	71.454	50.431	27.371	1.00	45.15	N
ATOM	10269	CA	GLU	B	203	72.591	50.431	28.276	1.00	45.79	C
ATOM	10271	CB	GLU	B	203	73.864	50.765	27.488	1.00	47.53	C
ATOM	10274	CG	GLU	B	203	75.124	50.209	28.110	1.00	54.03	C
ATOM	10277	CD	GLU	B	203	76.364	50.928	27.644	1.00	59.01	C
ATOM	10278	OE1	GLU	B	203	76.563	51.037	26.402	1.00	60.90	O
ATOM	10279	OE2	GLU	B	203	77.122	51.386	28.534	1.00	63.18	O
ATOM	10280	C	GLU	B	203	72.384	51.437	29.420	1.00	43.96	C
ATOM	10281	O	GLU	B	203	72.615	51.120	30.590	1.00	41.33	O
ATOM	10282	N	ASN	B	204	71.967	52.650	29.064	1.00	43.40	N
ATOM	10284	CA	ASN	B	204	71.531	53.647	30.032	1.00	45.38	C
ATOM	10286	CB	ASN	B	204	71.043	54.892	29.300	1.00	46.44	C
ATOM	10289	CG	ASN	B	204	72.172	55.817	28.899	1.00	51.55	C
ATOM	10290	OD1	ASN	B	204	71.936	56.855	28.273	1.00	56.95	O
ATOM	10291	ND2	ASN	B	204	73.405	55.454	29.259	1.00	52.70	N
ATOM	10294	C	ASN	B	204	70.436	53.152	30.999	1.00	45.83	C
ATOM	10295	O	ASN	B	204	70.446	53.514	32.160	1.00	48.06	O
ATOM	10296	N	ILE	B	205	69.514	52.316	30.536	1.00	46.24	N
ATOM	10298	CA	ILE	B	205	68.417	51.846	31.377	1.00	50.12	C
ATOM	10300	CB	ILE	B	205	67.303	51.182	30.515	1.00	51.81	C
ATOM	10302	CG1	ILE	B	205	66.580	52.230	29.679	1.00	52.14	C
ATOM	10305	CD1	ILE	B	205	65.984	51.635	28.354	1.00	55.32	C
ATOM	10309	CG2	ILE	B	205	66.292	50.405	31.366	1.00	50.47	C
ATOM	10313	C	ILE	B	205	68.939	50.852	32.378	1.00	51.01	C
ATOM	10314	O	ILE	B	205	68.519	50.860	33.541	1.00	55.71	O
ATOM	10315	N	GLU	B	206	69.822	49.975	31.900	1.00	53.47	N
ATOM	10317	CA	GLU	B	206	70.490	48.955	32.716	1.00	52.39	C
ATOM	10319	CB	GLU	B	206	71.381	48.074	31.833	1.00	53.14	C
ATOM	10322	CG	GLU	B	206	71.646	46.669	32.359	1.00	62.06	C
ATOM	10325	CD	GLU	B	206	73.115	46.240	32.249	1.00	69.80	C
ATOM	10326	OE1	GLU	B	206	73.636	45.570	33.186	1.00	74.82	O
ATOM	10327	OE2	GLU	B	206	73.755	46.572	31.225	1.00	73.65	O
ATOM	10328	C	GLU	B	206	71.301	49.636	33.832	1.00	51.22	C
ATOM	10329	O	GLU	B	206	71.132	49.319	35.010	1.00	50.97	O
ATOM	10330	N	ILE	B	207	72.149	50.596	33.471	1.00	47.59	N
ATOM	10332	CA	ILE	B	207	72.909	51.334	34.472	1.00	48.00	C
ATOM	10334	CB	ILE	B	207	73.736	52.475	33.818	1.00	49.34	C
ATOM	10336	CG1	ILE	B	207	74.943	51.896	33.079	1.00	49.48	C
ATOM	10339	CD1	ILE	B	207	75.423	52.774	31.929	1.00	50.36	C
ATOM	10343	CG2	ILE	B	207	74.209	53.505	34.864	1.00	49.11	C
ATOM	10347	C	ILE	B	207	71.969	51.904	35.527	1.00	46.15	C
ATOM	10348	O	ILE	B	207	72.186	51.722	36.715	1.00	46.51	O
ATOM	10349	N	LEU	B	208	70.914	52.574	35.079	1.00	44.85	N
ATOM	10351	CA	LEU	B	208	70.060	53.365	35.962	1.00	42.26	C
ATOM	10353	CB	LEU	B	208	69.237	54.342	35.143	1.00	38.63	C
ATOM	10356	CG	LEU	B	208	70.026	55.543	34.652	1.00	43.79	C
ATOM	10358	CD1	LEU	B	208	69.201	56.364	33.672	1.00	43.55	C
ATOM	10362	CD2	LEU	B	208	70.521	56.404	35.828	1.00	46.49	C
ATOM	10366	C	LEU	B	208	69.123	52.532	36.836	1.00	45.78	C
ATOM	10367	O	LEU	B	208	68.516	53.072	37.760	1.00	47.74	O
ATOM	10368	N	SER	B	209	69.018	51.232	36.551	1.00	45.69	N
ATOM	10370	CA	SER	B	209	68.174	50.323	37.313	1.00	47.63	C
ATOM	10372	CB	SER	B	209	67.412	49.428	36.348	1.00	47.36	C
ATOM	10375	OG	SER	B	209	68.300	48.744	35.499	1.00	46.14	O
ATOM	10377	C	SER	B	209	68.941	49.472	38.355	1.00	53.01	C
ATOM	10378	O	SER	B	209	68.404	48.502	38.899	1.00	54.21	O
ATOM	10379	N	SER	B	210	70.182	49.850	38.644	1.00	56.37	N

367/514

Figure 5

ATOM	10381	CA	SER	B	210	70.974	49.210	39.688	1.00	59.99	C
ATOM	10383	CB	SER	B	210	72.461	49.531	39.527	1.00	61.68	C
ATOM	10386	OG	SER	B	210	72.973	48.897	38.368	1.00	69.94	O
ATOM	10388	C	SER	B	210	70.543	49.769	41.006	1.00	58.76	C
ATOM	10389	O	SER	B	210	70.505	50.973	41.154	1.00	60.95	O
ATOM	10390	N	PRO	B	211	70.201	48.920	41.965	1.00	59.65	N
ATOM	10391	CA	PRO	B	211	70.000	49.382	43.344	1.00	60.13	C
ATOM	10393	CB	PRO	B	211	69.853	48.078	44.105	1.00	61.60	C
ATOM	10396	CG	PRO	B	211	69.218	47.176	43.104	1.00	60.26	C
ATOM	10399	CD	PRO	B	211	69.904	47.483	41.815	1.00	57.83	C
ATOM	10402	C	PRO	B	211	71.170	50.207	43.877	1.00	61.83	C
ATOM	10403	O	PRO	B	211	71.003	51.093	44.691	1.00	62.83	O
ATOM	10404	N	TRP	B	212	72.355	49.897	43.397	1.00	66.81	N
ATOM	10406	CA	TRP	B	212	73.558	50.694	43.617	1.00	70.92	C
ATOM	10408	CB	TRP	B	212	74.625	50.110	42.645	1.00	77.32	C
ATOM	10411	CG	TRP	B	212	76.090	50.481	42.755	1.00	84.41	C
ATOM	10412	CD1	TRP	B	212	76.940	50.726	41.699	1.00	87.03	C
ATOM	10414	NE1	TRP	B	212	78.205	51.007	42.158	1.00	90.55	N
ATOM	10416	CE2	TRP	B	212	78.215	50.922	43.527	1.00	93.47	C
ATOM	10417	CD2	TRP	B	212	76.896	50.581	43.942	1.00	90.85	C
ATOM	10418	CE3	TRP	B	212	76.642	50.436	45.320	1.00	92.62	C
ATOM	10420	CZ3	TRP	B	212	77.706	50.633	46.236	1.00	94.00	C
ATOM	10422	CH2	TRP	B	212	79.004	50.969	45.785	1.00	93.78	C
ATOM	10424	CZ2	TRP	B	212	79.278	51.115	44.443	1.00	95.21	C
ATOM	10426	C	TRP	B	212	73.293	52.229	43.449	1.00	67.83	C
ATOM	10427	O	TRP	B	212	73.817	53.025	44.209	1.00	69.50	O
ATOM	10428	N	ILE	B	213	72.450	52.641	42.501	1.00	65.11	N
ATOM	10430	CA	ILE	B	213	72.208	54.077	42.209	1.00	63.23	C
ATOM	10432	CB	ILE	B	213	71.216	54.238	40.998	1.00	62.76	C
ATOM	10434	CG1	ILE	B	213	71.853	53.796	39.685	1.00	62.26	C
ATOM	10437	CD1	ILE	B	213	73.077	54.570	39.292	1.00	61.63	C
ATOM	10441	CG2	ILE	B	213	70.711	55.694	40.832	1.00	63.74	C
ATOM	10445	C	ILE	B	213	71.651	54.903	43.369	1.00	64.00	C
ATOM	10446	O	ILE	B	213	71.807	56.127	43.413	1.00	65.32	O
ATOM	10447	N	GLN	B	214	70.939	54.246	44.269	1.00	63.90	N
ATOM	10449	CA	GLN	B	214	70.255	54.931	45.353	1.00	61.39	C
ATOM	10451	CB	GLN	B	214	69.078	54.060	45.830	1.00	64.68	C
ATOM	10454	CG	GLN	B	214	67.963	54.805	46.553	1.00	68.59	C
ATOM	10457	CD	GLN	B	214	67.571	56.083	45.849	1.00	72.73	C
ATOM	10458	OE1	GLN	B	214	67.398	56.099	44.620	1.00	73.27	O
ATOM	10459	NE2	GLN	B	214	67.448	57.166	46.617	1.00	73.67	N
ATOM	10462	C	GLN	B	214	71.242	55.273	46.487	1.00	56.84	C
ATOM	10463	O	GLN	B	214	71.066	56.247	47.227	1.00	52.38	O
ATOM	10464	N	VAL	B	215	72.291	54.475	46.608	1.00	52.81	N
ATOM	10466	CA	VAL	B	215	73.413	54.827	47.468	1.00	54.76	C
ATOM	10468	CB	VAL	B	215	74.589	53.805	47.357	1.00	56.71	C
ATOM	10470	CG1	VAL	B	215	75.540	53.964	48.518	1.00	56.32	C
ATOM	10474	CG2	VAL	B	215	74.084	52.347	47.303	1.00	59.54	C
ATOM	10478	C	VAL	B	215	73.927	56.242	47.132	1.00	51.94	C
ATOM	10479	O	VAL	B	215	74.163	57.045	48.019	1.00	54.70	O
ATOM	10480	N	TYR	B	216	74.073	56.548	45.850	1.00	51.81	N
ATOM	10482	CA	TYR	B	216	74.582	57.847	45.420	1.00	50.46	C
ATOM	10484	CB	TYR	B	216	74.699	57.895	43.905	1.00	50.98	C
ATOM	10487	CG	TYR	B	216	75.822	57.077	43.279	1.00	54.98	C
ATOM	10488	CD1	TYR	B	216	77.147	57.255	43.662	1.00	57.50	C
ATOM	10490	CE1	TYR	B	216	78.170	56.523	43.067	1.00	59.09	C
ATOM	10492	CZ	TYR	B	216	77.876	55.612	42.067	1.00	57.97	C
ATOM	10493	OH	TYR	B	216	78.893	54.893	41.476	1.00	64.50	O
ATOM	10495	CE2	TYR	B	216	76.576	55.428	41.663	1.00	55.37	C
ATOM	10497	CD2	TYR	B	216	75.558	56.162	42.262	1.00	55.22	C
ATOM	10499	C	TYR	B	216	73.701	59.010	45.873	1.00	53.08	C
ATOM	10500	O	TYR	B	216	74.212	60.086	46.220	1.00	54.12	O
ATOM	10501	N	ASN	B	217	72.383	58.807	45.853	1.00	53.38	N
ATOM	10503	CA	ASN	B	217	71.442	59.861	46.228	1.00	52.92	C
ATOM	10505	CB	ASN	B	217	70.010	59.478	45.829	1.00	54.95	C
ATOM	10508	CG	ASN	B	217	69.819	59.339	44.310	1.00	53.08	C
ATOM	10509	OD1	ASN	B	217	70.490	59.997	43.503	1.00	44.58	O
ATOM	10510	ND2	ASN	B	217	68.877	58.478	43.926	1.00	52.79	N
ATOM	10513	C	ASN	B	217	71.504	60.180	47.725	1.00	53.30	C
ATOM	10514	O	ASN	B	217	71.291	61.316	48.137	1.00	48.98	O
ATOM	10515	N	ASN	B	218	71.804	59.172	48.535	1.00	54.69	N
ATOM	10517	CA	ASN	B	218	72.018	59.383	49.962	1.00	58.06	C
ATOM	10519	CB	ASN	B	218	71.865	58.061	50.748	1.00	60.78	C
ATOM	10522	CG	ASN	B	218	70.424	57.537	50.761	1.00	60.18	C
ATOM	10523	OD1	ASN	B	218	69.562	58.069	51.459	1.00	58.81	O
ATOM	10524	ND2	ASN	B	218	70.172	56.480	49.992	1.00	56.34	N

368/514

Figure 5

ATOM	10527	C	ASN	B	218	73.408	60.001	50.220	1.00	59.56	C
ATOM	10528	O	ASN	B	218	73.551	60.958	51.009	1.00	56.87	O
ATOM	10529	N	PHE	B	219	74.424	59.455	49.544	1.00	56.84	N
ATOM	10531	CA	PHE	B	219	75.806	59.846	49.767	1.00	55.69	C
ATOM	10533	CB	PHE	B	219	76.601	58.638	50.267	1.00	59.63	C
ATOM	10536	CG	PHE	B	219	75.905	57.820	51.337	1.00	63.47	C
ATOM	10537	CD1	PHE	B	219	76.066	56.430	51.367	1.00	67.09	C
ATOM	10539	CE1	PHE	B	219	75.458	55.655	52.342	1.00	67.91	C
ATOM	10541	CZ	PHE	B	219	74.682	56.264	53.313	1.00	69.07	C
ATOM	10543	CE2	PHE	B	219	74.515	57.651	53.299	1.00	69.17	C
ATOM	10545	CD2	PHE	B	219	75.134	58.420	52.320	1.00	65.65	C
ATOM	10547	C	PHE	B	219	76.486	60.415	48.507	1.00	53.80	C
ATOM	10548	O	PHE	B	219	77.369	59.772	47.954	1.00	54.09	O
ATOM	10549	N	PRO	B	220	76.125	61.624	48.074	1.00	51.90	N
ATOM	10550	CA	PRO	B	220	76.702	62.218	46.855	1.00	52.59	C
ATOM	10552	CB	PRO	B	220	76.158	63.669	46.864	1.00	52.60	C
ATOM	10555	CG	PRO	B	220	75.550	63.896	48.215	1.00	50.50	C
ATOM	10558	CD	PRO	B	220	75.163	62.538	48.717	1.00	52.92	C
ATOM	10561	C	PRO	B	220	78.241	62.242	46.782	1.00	55.14	C
ATOM	10562	O	PRO	B	220	78.791	62.381	45.694	1.00	59.99	O
ATOM	10563	N	ALA	B	221	78.924	62.146	47.916	1.00	54.63	N
ATOM	10565	CA	ALA	B	221	80.374	62.138	47.923	1.00	54.62	C
ATOM	10567	CB	ALA	B	221	80.893	62.229	49.353	1.00	55.17	C
ATOM	10571	C	ALA	B	221	80.907	60.877	47.237	1.00	55.55	C
ATOM	10572	O	ALA	B	221	81.995	60.887	46.683	1.00	60.34	O
ATOM	10573	N	LEU	B	222	80.137	59.796	47.264	1.00	53.48	N
ATOM	10575	CA	LEU	B	222	80.545	58.548	46.640	1.00	52.48	C
ATOM	10577	CB	LEU	B	222	79.595	57.416	47.042	1.00	54.77	C
ATOM	10580	CG	LEU	B	222	79.582	56.957	48.504	1.00	57.01	C
ATOM	10582	CD1	LEU	B	222	78.834	55.636	48.595	1.00	55.16	C
ATOM	10586	CD2	LEU	B	222	80.999	56.829	49.119	1.00	57.95	C
ATOM	10590	C	LEU	B	222	80.604	58.623	45.120	1.00	53.37	C
ATOM	10591	O	LEU	B	222	81.034	57.671	44.462	1.00	48.59	O
ATOM	10592	N	LEU	B	223	80.146	59.732	44.553	1.00	56.15	N
ATOM	10594	CA	LEU	B	223	80.226	59.932	43.107	1.00	57.48	C
ATOM	10596	CB	LEU	B	223	79.343	61.108	42.684	1.00	57.30	C
ATOM	10599	CG	LEU	B	223	77.836	60.838	42.772	1.00	52.63	C
ATOM	10601	CD1	LEU	B	223	77.006	62.114	42.851	1.00	49.43	C
ATOM	10605	CD2	LEU	B	223	77.428	60.026	41.595	1.00	51.32	C
ATOM	10609	C	LEU	B	223	81.673	60.175	42.704	1.00	60.66	C
ATOM	10610	O	LEU	B	223	82.135	59.638	41.689	1.00	57.55	O
ATOM	10611	N	ASP	B	224	82.367	60.980	43.521	1.00	65.61	N
ATOM	10613	CA	ASP	B	224	83.822	61.172	43.432	1.00	69.52	C
ATOM	10615	CB	ASP	B	224	84.332	62.114	44.539	1.00	71.02	C
ATOM	10618	CG	ASP	B	224	83.711	63.513	44.474	1.00	73.65	C
ATOM	10619	OD1	ASP	B	224	83.600	64.074	43.365	1.00	71.92	O
ATOM	10620	OD2	ASP	B	224	83.314	64.139	45.490	1.00	78.42	O
ATOM	10621	C	ASP	B	224	84.599	59.849	43.506	1.00	70.95	C
ATOM	10622	O	ASP	B	224	85.487	59.624	42.693	1.00	73.77	O
ATOM	10623	N	TYR	B	225	84.246	58.979	44.458	1.00	72.95	N
ATOM	10625	CA	TYR	B	225	85.016	57.750	44.747	1.00	74.26	C
ATOM	10627	CB	TYR	B	225	84.871	57.332	46.236	1.00	74.17	C
ATOM	10630	CG	TYR	B	225	85.550	58.278	47.224	1.00	76.24	C
ATOM	10631	CD1	TYR	B	225	84.986	59.518	47.533	1.00	78.93	C
ATOM	10633	CE1	TYR	B	225	85.593	60.397	48.427	1.00	80.70	C
ATOM	10635	CZ	TYR	B	225	86.786	60.046	49.030	1.00	81.28	C
ATOM	10636	OH	TYR	B	225	87.386	60.927	49.915	1.00	78.71	O
ATOM	10638	CE2	TYR	B	225	87.368	58.816	48.739	1.00	79.68	C
ATOM	10640	CD2	TYR	B	225	86.748	57.941	47.841	1.00	76.90	C
ATOM	10642	C	TYR	B	225	84.656	56.569	43.844	1.00	74.03	C
ATOM	10643	O	TYR	B	225	85.327	55.538	43.882	1.00	77.38	O
ATOM	10644	N	PHE	B	226	83.601	56.718	43.048	1.00	74.89	N
ATOM	10646	CA	PHE	B	226	83.112	55.665	42.145	1.00	74.78	C
ATOM	10648	CB	PHE	B	226	82.044	54.796	42.818	1.00	77.17	C
ATOM	10651	CG	PHE	B	226	82.567	53.875	43.884	1.00	81.39	C
ATOM	10652	CD1	PHE	B	226	82.559	54.264	45.223	1.00	81.72	C
ATOM	10654	CE1	PHE	B	226	83.014	53.417	46.208	1.00	80.66	C
ATOM	10656	CZ	PHE	B	226	83.478	52.149	45.869	1.00	84.79	C
ATOM	10658	CE2	PHE	B	226	83.480	51.736	44.537	1.00	85.65	C
ATOM	10660	CD2	PHE	B	226	83.020	52.597	43.554	1.00	85.56	C
ATOM	10662	C	PHE	B	226	82.468	56.354	40.948	1.00	71.46	C
ATOM	10663	O	PHE	B	226	81.242	56.426	40.851	1.00	72.22	O
ATOM	10664	N	PRO	B	227	83.276	56.878	40.041	1.00	66.83	N
ATOM	10665	CA	PRO	B	227	82.740	57.700	38.959	1.00	62.98	C
ATOM	10667	CB	PRO	B	227	83.890	58.657	38.657	1.00	65.04	C
ATOM	10670	CG	PRO	B	227	85.155	57.868	39.033	1.00	68.03	C

Figure 5

ATOM	10673	CD	PRO	B	227	84.734	56.710	39.927	1.00	68.18	C
ATOM	10676	C	PRO	B	227	82.387	56.868	37.732	1.00	57.33	C
ATOM	10677	O	PRO	B	227	81.920	57.435	36.774	1.00	49.96	O
ATOM	10678	N	GLY	B	228	82.594	55.558	37.761	1.00	55.62	N
ATOM	10680	CA	GLY	B	228	82.304	54.724	36.611	1.00	57.53	C
ATOM	10683	C	GLY	B	228	80.885	54.887	36.087	1.00	57.79	C
ATOM	10684	O	GLY	B	228	80.674	54.984	34.883	1.00	59.27	O
ATOM	10685	N	THR	B	229	79.915	54.900	36.997	1.00	57.34	N
ATOM	10687	CA	THR	B	229	78.528	55.215	36.672	1.00	53.88	C
ATOM	10689	CB	THR	B	229	77.620	54.770	37.818	1.00	52.45	C
ATOM	10691	OG1	THR	B	229	77.559	53.343	37.858	1.00	57.85	O
ATOM	10693	CG2	THR	B	229	76.187	55.207	37.574	1.00	52.09	C
ATOM	10697	C	THR	B	229	78.439	56.711	36.574	1.00	52.58	C
ATOM	10698	O	THR	B	229	78.776	57.390	37.542	1.00	59.75	O
ATOM	10699	N	HIS	B	230	77.982	57.225	35.445	1.00	47.74	N
ATOM	10701	CA	HIS	B	230	77.919	58.672	35.195	1.00	51.53	C
ATOM	10703	CB	HIS	B	230	77.867	59.564	36.469	1.00	52.04	C
ATOM	10706	CG	HIS	B	230	79.136	60.285	36.839	1.00	57.17	C
ATOM	10707	ND1	HIS	B	230	79.155	61.210	37.861	1.00	63.61	N
ATOM	10709	CE1	HIS	B	230	80.379	61.688	38.011	1.00	63.23	C
ATOM	10711	NE2	HIS	B	230	81.168	61.095	37.129	1.00	62.17	N
ATOM	10713	CD2	HIS	B	230	80.417	60.210	36.387	1.00	62.32	C
ATOM	10715	C	HIS	B	230	78.962	59.100	34.196	1.00	54.60	C
ATOM	10716	O	HIS	B	230	78.782	60.086	33.475	1.00	53.87	O
ATOM	10717	N	ASN	B	231	80.054	58.350	34.148	1.00	55.43	N
ATOM	10719	CA	ASN	B	231	81.006	58.495	33.079	1.00	52.75	C
ATOM	10721	CB	ASN	B	231	82.407	58.000	33.494	1.00	53.15	C
ATOM	10724	CG	ASN	B	231	83.191	59.042	34.323	1.00	53.79	C
ATOM	10725	OD1	ASN	B	231	82.779	60.196	34.462	1.00	53.39	O
ATOM	10726	ND2	ASN	B	231	84.329	58.621	34.879	1.00	52.99	N
ATOM	10729	C	ASN	B	231	80.412	57.712	31.920	1.00	51.00	C
ATOM	10730	O	ASN	B	231	80.431	58.185	30.796	1.00	49.67	O
ATOM	10731	N	LYS	B	232	79.843	56.543	32.207	1.00	50.00	N
ATOM	10733	CA	LYS	B	232	79.177	55.745	31.182	1.00	53.42	C
ATOM	10735	CB	LYS	B	232	78.750	54.376	31.718	1.00	55.32	C
ATOM	10738	CG	LYS	B	232	79.878	53.492	32.236	1.00	61.72	C
ATOM	10741	CD	LYS	B	232	79.528	52.719	33.553	1.00	63.99	C
ATOM	10744	CE	LYS	B	232	79.036	51.277	33.302	1.00	64.11	C
ATOM	10747	NZ	LYS	B	232	78.534	50.640	34.559	1.00	62.81	N
ATOM	10751	C	LYS	B	232	77.928	56.468	30.665	1.00	52.95	C
ATOM	10752	O	LYS	B	232	77.645	56.438	29.470	1.00	57.08	O
ATOM	10753	N	LEU	B	233	77.175	57.095	31.568	1.00	48.05	N
ATOM	10755	CA	LEU	B	233	75.967	57.795	31.177	1.00	44.71	C
ATOM	10757	CB	LEU	B	233	75.166	58.238	32.402	1.00	44.38	C
ATOM	10760	CG	LEU	B	233	74.547	57.090	33.211	1.00	43.48	C
ATOM	10762	CD1	LEU	B	233	74.098	57.553	34.594	1.00	38.48	C
ATOM	10766	CD2	LEU	B	233	73.384	56.443	32.432	1.00	43.85	C
ATOM	10770	C	LEU	B	233	76.313	58.989	30.309	1.00	46.49	C
ATOM	10771	O	LEU	B	233	75.709	59.177	29.251	1.00	46.35	O
ATOM	10772	N	LEU	B	234	77.291	59.782	30.756	1.00	49.00	N
ATOM	10774	CA	LEU	B	234	77.803	60.951	30.004	1.00	48.44	C
ATOM	10776	CB	LEU	B	234	78.934	61.646	30.779	1.00	48.74	C
ATOM	10779	CG	LEU	B	234	78.508	62.641	31.872	1.00	49.33	C
ATOM	10781	CD1	LEU	B	234	79.686	63.060	32.760	1.00	50.34	C
ATOM	10785	CD2	LEU	B	234	77.853	63.847	31.266	1.00	48.52	C
ATOM	10789	C	LEU	B	234	78.315	60.591	28.609	1.00	46.44	C
ATOM	10790	O	LEU	B	234	78.085	61.317	27.634	1.00	44.51	O
ATOM	10791	N	LYS	B	235	78.987	59.452	28.537	1.00	45.08	N
ATOM	10793	CA	LYS	B	235	79.642	59.010	27.329	1.00	47.93	C
ATOM	10795	CB	LYS	B	235	80.528	57.796	27.638	1.00	49.94	C
ATOM	10798	CG	LYS	B	235	81.460	57.353	26.521	1.00	55.96	C
ATOM	10801	CD	LYS	B	235	81.950	55.887	26.714	1.00	61.01	C
ATOM	10804	CE	LYS	B	235	83.494	55.732	26.537	1.00	63.08	C
ATOM	10807	NZ	LYS	B	235	84.292	55.931	27.813	1.00	57.60	N
ATOM	10811	C	LYS	B	235	78.565	58.648	26.343	1.00	46.41	C
ATOM	10812	O	LYS	B	235	78.640	58.990	25.170	1.00	49.22	O
ATOM	10813	N	ASN	B	236	77.547	57.964	26.838	1.00	47.47	N
ATOM	10815	CA	ASN	B	236	76.474	57.464	25.995	1.00	46.92	C
ATOM	10817	CB	ASN	B	236	75.694	56.385	26.732	1.00	47.62	C
ATOM	10820	CG	ASN	B	236	76.463	55.089	26.831	1.00	47.51	C
ATOM	10821	OD1	ASN	B	236	75.960	54.098	27.338	1.00	51.37	O
ATOM	10822	ND2	ASN	B	236	77.678	55.085	26.321	1.00	50.41	N
ATOM	10825	C	ASN	B	236	75.562	58.584	25.530	1.00	46.06	C
ATOM	10826	O	ASN	B	236	75.074	58.547	24.414	1.00	42.49	O
ATOM	10827	N	VAL	B	237	75.381	59.599	26.373	1.00	45.66	N
ATOM	10829	CA	VAL	B	237	74.584	60.765	26.015	1.00	46.83	C

370/514

Figure 5

ATOM	10831	CB	VAL	B	237	74.164	61.583	27.274	1.00	44.74	C
ATOM	10833	CG1	VAL	B	237	73.561	62.933	26.904	1.00	45.68	C
ATOM	10837	CG2	VAL	B	237	73.156	60.805	28.074	1.00	43.82	C
ATOM	10841	C	VAL	B	237	75.330	61.638	25.005	1.00	48.98	C
ATOM	10842	O	VAL	B	237	74.711	62.400	24.278	1.00	52.52	O
ATOM	10843	N	ALA	B	238	76.654	61.524	24.969	1.00	50.88	N
ATOM	10845	CA	ALA	B	238	77.484	62.283	24.026	1.00	47.23	C
ATOM	10847	CB	ALA	B	238	78.930	62.405	24.546	1.00	45.04	C
ATOM	10851	C	ALA	B	238	77.444	61.601	22.660	1.00	42.41	C
ATOM	10852	O	ALA	B	238	77.338	62.270	21.631	1.00	43.67	O
ATOM	10853	N	PHE	B	239	77.524	60.274	22.661	1.00	37.92	N
ATOM	10855	CA	PHE	B	239	77.375	59.470	21.446	1.00	38.78	C
ATOM	10857	CB	PHE	B	239	77.501	57.977	21.784	1.00	36.59	C
ATOM	10860	CG	PHE	B	239	77.401	57.070	20.590	1.00	38.09	C
ATOM	10861	CD1	PHE	B	239	76.155	56.757	20.038	1.00	40.54	C
ATOM	10863	CE1	PHE	B	239	76.055	55.918	18.925	1.00	38.07	C
ATOM	10865	CZ	PHE	B	239	77.221	55.384	18.352	1.00	39.38	C
ATOM	10867	CE2	PHE	B	239	78.465	55.690	18.891	1.00	34.70	C
ATOM	10869	CD2	PHE	B	239	78.552	56.531	20.006	1.00	37.52	C
ATOM	10871	C	PHE	B	239	76.023	59.758	20.786	1.00	40.38	C
ATOM	10872	O	PHE	B	239	75.950	60.034	19.602	1.00	42.64	O
ATOM	10873	N	MET	B	240	74.960	59.724	21.587	1.00	45.03	N
ATOM	10875	CA	MET	B	240	73.611	60.038	21.128	1.00	44.91	C
ATOM	10877	CB	MET	B	240	72.587	59.799	22.254	1.00	45.96	C
ATOM	10880	CG	MET	B	240	72.196	58.327	22.362	1.00	44.94	C
ATOM	10883	SD	MET	B	240	71.003	57.867	23.613	1.00	51.63	S
ATOM	10884	CE	MET	B	240	71.548	58.680	25.058	1.00	46.78	C
ATOM	10888	C	MET	B	240	73.511	61.468	20.607	1.00	44.94	C
ATOM	10889	O	MET	B	240	72.946	61.699	19.548	1.00	45.53	O
ATOM	10890	N	LYS	B	241	74.088	62.417	21.331	1.00	40.87	N
ATOM	10892	CA	LYS	B	241	73.992	63.815	20.940	1.00	40.76	C
ATOM	10894	CB	LYS	B	241	74.631	64.725	21.977	1.00	37.19	C
ATOM	10897	CG	LYS	B	241	73.687	65.221	23.014	1.00	38.72	C
ATOM	10900	CD	LYS	B	241	74.260	66.399	23.742	1.00	42.24	C
ATOM	10903	CE	LYS	B	241	73.877	66.397	25.183	1.00	46.22	C
ATOM	10906	NZ	LYS	B	241	74.688	67.392	25.946	1.00	50.91	N
ATOM	10910	C	LYS	B	241	74.637	64.094	19.594	1.00	44.44	C
ATOM	10911	O	LYS	B	241	74.047	64.749	18.753	1.00	46.88	O
ATOM	10912	N	SER	B	242	75.858	63.621	19.400	1.00	49.58	N
ATOM	10914	CA	SER	B	242	76.615	63.981	18.208	1.00	48.08	C
ATOM	10916	CB	SER	B	242	78.129	63.804	18.409	1.00	46.17	C
ATOM	10919	OG	SER	B	242	78.520	62.526	17.964	1.00	42.60	O
ATOM	10921	C	SER	B	242	76.100	63.161	17.029	1.00	45.38	C
ATOM	10922	O	SER	B	242	76.243	63.576	15.894	1.00	48.48	O
ATOM	10923	N	TYR	B	243	75.486	62.014	17.295	1.00	45.27	N
ATOM	10925	CA	TYR	B	243	74.735	61.291	16.248	1.00	45.03	C
ATOM	10927	CB	TYR	B	243	74.261	59.941	16.756	1.00	40.61	C
ATOM	10930	CG	TYR	B	243	73.250	59.300	15.845	1.00	44.20	C
ATOM	10931	CD1	TYR	B	243	73.609	58.851	14.584	1.00	43.44	C
ATOM	10933	CE1	TYR	B	243	72.680	58.263	13.733	1.00	47.55	C
ATOM	10935	CZ	TYR	B	243	71.361	58.115	14.146	1.00	52.95	C
ATOM	10936	OH	TYR	B	243	70.418	57.525	13.315	1.00	57.39	O
ATOM	10938	CE2	TYR	B	243	70.981	58.555	15.405	1.00	50.58	C
ATOM	10940	CD2	TYR	B	243	71.925	59.159	16.238	1.00	49.74	C
ATOM	10942	C	TYR	B	243	73.513	62.071	15.739	1.00	46.40	C
ATOM	10943	O	TYR	B	243	73.199	62.038	14.567	1.00	49.36	O
ATOM	10944	N	ILE	B	244	72.821	62.755	16.643	1.00	47.66	N
ATOM	10946	CA	ILE	B	244	71.690	63.586	16.294	1.00	45.40	C
ATOM	10948	CB	ILE	B	244	70.885	63.964	17.560	1.00	45.87	C
ATOM	10950	CG1	ILE	B	244	69.960	62.808	17.942	1.00	45.67	C
ATOM	10953	CD1	ILE	B	244	69.590	62.782	19.371	1.00	46.75	C
ATOM	10957	CG2	ILE	B	244	70.054	65.239	17.345	1.00	46.14	C
ATOM	10961	C	ILE	B	244	72.160	64.813	15.562	1.00	46.76	C
ATOM	10962	O	ILE	B	244	71.508	65.254	14.621	1.00	46.95	O
ATOM	10963	N	LEU	B	245	73.295	65.356	16.003	1.00	51.05	N
ATOM	10965	CA	LEU	B	245	73.949	66.529	15.393	1.00	50.93	C
ATOM	10967	CB	LEU	B	245	75.225	66.851	16.182	1.00	52.92	C
ATOM	10970	CG	LEU	B	245	75.961	68.202	16.147	1.00	57.19	C
ATOM	10972	CD1	LEU	B	245	77.349	68.042	15.520	1.00	60.36	C
ATOM	10976	CD2	LEU	B	245	75.163	69.304	15.461	1.00	55.37	C
ATOM	10980	C	LEU	B	245	74.289	66.221	13.932	1.00	51.61	C
ATOM	10981	O	LEU	B	245	74.166	67.056	13.056	1.00	54.59	O
ATOM	10982	N	GLU	B	246	74.692	64.992	13.677	1.00	51.38	N
ATOM	10984	CA	GLU	B	246	74.941	64.527	12.331	1.00	56.33	C
ATOM	10986	CB	GLU	B	246	75.380	63.054	12.399	1.00	61.49	C
ATOM	10989	CG	GLU	B	246	76.137	62.459	11.223	1.00	66.11	C

371/514

Figure 5

ATOM	10992	CD	GLU	B	246	76.296	60.946	11.394	1.00	72.90	C
ATOM	10993	OE1	GLU	B	246	76.616	60.516	12.530	1.00	74.85	O
ATOM	10994	OE2	GLU	B	246	76.078	60.180	10.418	1.00	77.25	O
ATOM	10995	C	GLU	B	246	73.641	64.688	11.561	1.00	53.48	C
ATOM	10996	O	GLU	B	246	73.622	65.217	10.463	1.00	55.08	O
ATOM	10997	N	LYS	B	247	72.551	64.255	12.179	1.00	53.18	N
ATOM	10999	CA	LYS	B	247	71.231	64.337	11.583	1.00	51.62	C
ATOM	11001	CB	LYS	B	247	70.218	63.512	12.385	1.00	51.92	C
ATOM	11004	CG	LYS	B	247	69.711	62.308	11.652	1.00	50.90	C
ATOM	11007	CD	LYS	B	247	70.801	61.292	11.502	1.00	52.18	C
ATOM	11010	CE	LYS	B	247	70.245	59.952	11.079	1.00	50.30	C
ATOM	11013	NZ	LYS	B	247	69.655	60.023	9.723	1.00	48.12	N
ATOM	11017	C	LYS	B	247	70.703	65.760	11.432	1.00	50.78	C
ATOM	11018	O	LYS	B	247	69.921	66.004	10.510	1.00	49.41	O
ATOM	11019	N	VAL	B	248	71.092	66.695	12.304	1.00	48.26	N
ATOM	11021	CA	VAL	B	248	70.560	68.055	12.177	1.00	49.18	C
ATOM	11023	CB	VAL	B	248	70.583	68.874	13.471	1.00	48.03	C
ATOM	11025	CG1	VAL	B	248	70.173	68.049	14.664	1.00	46.43	C
ATOM	11029	CG2	VAL	B	248	71.922	69.498	13.673	1.00	54.13	C
ATOM	11033	C	VAL	B	248	71.300	68.844	11.116	1.00	51.98	C
ATOM	11034	O	VAL	B	248	70.845	69.902	10.697	1.00	52.01	O
ATOM	11035	N	LYS	B	249	72.457	68.338	10.712	1.00	56.30	N
ATOM	11037	CA	LYS	B	249	73.248	68.957	9.671	1.00	56.37	C
ATOM	11039	CB	LYS	B	249	74.724	68.598	9.856	1.00	57.72	C
ATOM	11042	CG	LYS	B	249	75.430	69.404	10.946	1.00	56.55	C
ATOM	11045	CD	LYS	B	249	76.919	69.033	11.014	1.00	59.50	C
ATOM	11048	CE	LYS	B	249	77.676	69.835	12.069	1.00	61.67	C
ATOM	11051	NZ	LYS	B	249	77.740	71.301	11.748	1.00	65.84	N
ATOM	11055	C	LYS	B	249	72.710	68.506	8.312	1.00	57.32	C
ATOM	11056	O	LYS	B	249	72.604	69.321	7.401	1.00	62.53	O
ATOM	11057	N	GLU	B	250	72.379	67.217	8.185	1.00	55.49	N
ATOM	11059	CA	GLU	B	250	71.606	66.689	7.047	1.00	57.45	C
ATOM	11061	CB	GLU	B	250	71.239	65.210	7.266	1.00	58.54	C
ATOM	11064	CG	GLU	B	250	72.283	64.199	6.830	1.00	62.41	C
ATOM	11067	CD	GLU	B	250	72.126	62.817	7.473	1.00	65.17	C
ATOM	11068	OE1	GLU	B	250	73.171	62.180	7.725	1.00	70.77	O
ATOM	11069	OE2	GLU	B	250	70.988	62.350	7.722	1.00	65.36	O
ATOM	11070	C	GLU	B	250	70.289	67.438	6.834	1.00	57.43	C
ATOM	11071	O	GLU	B	250	69.788	67.523	5.717	1.00	62.37	O
ATOM	11072	N	HIS	B	251	69.698	67.930	7.917	1.00	55.15	N
ATOM	11074	CA	HIS	B	251	68.476	68.711	7.827	1.00	52.42	C
ATOM	11076	CB	HIS	B	251	67.710	68.718	9.158	1.00	49.60	C
ATOM	11079	CG	HIS	B	251	66.877	67.495	9.419	1.00	43.65	C
ATOM	11080	ND1	HIS	B	251	67.356	66.205	9.299	1.00	42.43	N
ATOM	11082	CE1	HIS	B	251	66.401	65.348	9.624	1.00	36.40	C
ATOM	11084	NE2	HIS	B	251	65.318	66.035	9.946	1.00	39.77	N
ATOM	11086	CD2	HIS	B	251	65.597	67.377	9.845	1.00	42.88	C
ATOM	11088	C	HIS	B	251	68.831	70.139	7.430	1.00	53.18	C
ATOM	11089	O	HIS	B	251	68.176	70.702	6.587	1.00	55.41	O
ATOM	11090	N	GLN	B	252	69.871	70.719	8.031	1.00	56.89	N
ATOM	11092	CA	GLN	B	252	70.232	72.127	7.800	1.00	58.75	C
ATOM	11094	CB	GLN	B	252	71.491	72.505	8.598	1.00	59.93	C
ATOM	11097	CG	GLN	B	252	71.222	73.202	9.941	1.00	60.55	C
ATOM	11100	CD	GLN	B	252	72.475	73.384	10.798	1.00	60.61	C
ATOM	11101	OE1	GLN	B	252	72.668	74.434	11.407	1.00	58.33	O
ATOM	11102	NE2	GLN	B	252	73.319	72.361	10.846	1.00	63.96	N
ATOM	11105	C	GLN	B	252	70.453	72.409	6.309	1.00	63.10	C
ATOM	11106	O	GLN	B	252	70.302	73.535	5.845	1.00	61.78	O
ATOM	11107	N	GLU	B	253	70.821	71.362	5.579	1.00	69.87	N
ATOM	11109	CA	GLU	B	253	70.967	71.383	4.127	1.00	75.34	C
ATOM	11111	CB	GLU	B	253	71.916	70.230	3.712	1.00	79.57	C
ATOM	11114	CG	GLU	B	253	72.671	70.412	2.397	1.00	86.04	C
ATOM	11117	CD	GLU	B	253	71.907	69.873	1.192	1.00	92.12	C
ATOM	11118	OE1	GLU	B	253	71.965	70.490	0.093	1.00	95.57	O
ATOM	11119	OE2	GLU	B	253	71.237	68.829	1.341	1.00	95.41	O
ATOM	11120	C	GLU	B	253	69.583	71.263	3.440	1.00	75.91	C
ATOM	11121	O	GLU	B	253	69.164	72.188	2.738	1.00	74.54	O
ATOM	11122	N	SER	B	254	68.880	70.146	3.684	1.00	77.16	N
ATOM	11124	CA	SER	B	254	67.572	69.821	3.066	1.00	77.29	C
ATOM	11126	CB	SER	B	254	67.114	68.422	3.490	1.00	78.80	C
ATOM	11129	OG	SER	B	254	67.830	67.422	2.800	1.00	83.17	O
ATOM	11131	C	SER	B	254	66.452	70.792	3.400	1.00	75.76	C
ATOM	11132	O	SER	B	254	66.054	71.578	2.561	1.00	75.78	O
ATOM	11133	N	MET	B	255	65.918	70.680	4.615	1.00	78.79	N
ATOM	11135	CA	MET	B	255	64.967	71.636	5.187	1.00	80.03	C
ATOM	11137	CB	MET	B	255	65.576	72.276	6.448	1.00	82.08	C

372/514

Figure 5

ATOM	11140	CG	MET	B	255	64.562	72.863	7.435	1.00	84.03	C
ATOM	11143	SD	MET	B	255	64.800	74.604	7.910	1.00	88.56	S
ATOM	11144	CE	MET	B	255	66.637	74.877	7.724	1.00	89.69	C
ATOM	11148	C	MET	B	255	64.515	72.747	4.235	1.00	78.15	C
ATOM	11149	O	MET	B	255	65.250	73.698	3.964	1.00	74.47	O
ATOM	11150	N	ASP	B	256	63.301	72.589	3.723	1.00	77.54	N
ATOM	11152	CA	ASP	B	256	62.570	73.671	3.078	1.00	76.31	C
ATOM	11154	CB	ASP	B	256	61.432	73.092	2.228	1.00	78.24	C
ATOM	11157	CG	ASP	B	256	60.928	74.051	1.171	1.00	79.63	C
ATOM	11158	OD1	ASP	B	256	60.573	75.194	1.515	1.00	77.36	O
ATOM	11159	OD2	ASP	B	256	60.831	73.732	-0.035	1.00	86.06	O
ATOM	11160	C	ASP	B	256	62.001	74.529	4.202	1.00	74.07	C
ATOM	11161	O	ASP	B	256	61.292	74.017	5.069	1.00	72.65	O
ATOM	11162	N	MET	B	257	62.321	75.821	4.191	1.00	72.70	N
ATOM	11164	CA	MET	B	257	61.813	76.767	5.190	1.00	73.66	C
ATOM	11166	CB	MET	B	257	62.452	78.150	4.988	1.00	78.63	C
ATOM	11169	CG	MET	B	257	63.801	78.325	5.676	1.00	84.37	C
ATOM	11172	SD	MET	B	257	63.690	78.296	7.500	1.00	92.67	S
ATOM	11173	CE	MET	B	257	65.506	78.193	7.924	1.00	91.18	C
ATOM	11177	C	MET	B	257	60.287	76.933	5.209	1.00	68.70	C
ATOM	11178	O	MET	B	257	59.752	77.429	6.184	1.00	66.93	O
ATOM	11179	N	ASN	B	258	59.606	76.538	4.134	1.00	67.17	N
ATOM	11181	CA	ASN	B	258	58.143	76.619	4.019	1.00	65.69	C
ATOM	11183	CB	ASN	B	258	57.763	77.151	2.634	1.00	66.01	C
ATOM	11186	CG	ASN	B	258	58.645	78.294	2.187	1.00	65.31	C
ATOM	11187	OD1	ASN	B	258	58.674	79.336	2.822	1.00	65.48	O
ATOM	11188	ND2	ASN	B	258	59.375	78.100	1.094	1.00	64.76	N
ATOM	11191	C	ASN	B	258	57.415	75.289	4.218	1.00	65.51	C
ATOM	11192	O	ASN	B	258	56.186	75.264	4.301	1.00	64.96	O
ATOM	11193	N	ASN	B	259	58.172	74.191	4.243	1.00	66.61	N
ATOM	11195	CA	ASN	B	259	57.629	72.837	4.389	1.00	67.86	C
ATOM	11197	CB	ASN	B	259	57.713	72.081	3.060	1.00	69.16	C
ATOM	11200	CG	ASN	B	259	57.028	72.815	1.933	1.00	69.32	C
ATOM	11201	OD1	ASN	B	259	55.799	72.857	1.873	1.00	68.53	O
ATOM	11202	ND2	ASN	B	259	57.818	73.429	1.042	1.00	68.49	N
ATOM	11205	C	ASN	B	259	58.361	72.038	5.466	1.00	67.38	C
ATOM	11206	O	ASN	B	259	59.122	71.119	5.152	1.00	71.60	O
ATOM	11207	N	PRO	B	260	58.131	72.382	6.733	1.00	64.03	N
ATOM	11208	CA	PRO	B	260	58.682	71.611	7.847	1.00	60.29	C
ATOM	11210	CB	PRO	B	260	58.322	72.458	9.069	1.00	61.68	C
ATOM	11213	CG	PRO	B	260	57.136	73.229	8.664	1.00	63.40	C
ATOM	11216	CD	PRO	B	260	57.305	73.508	7.205	1.00	63.19	C
ATOM	11219	C	PRO	B	260	57.983	70.277	7.939	1.00	56.55	C
ATOM	11220	O	PRO	B	260	56.752	70.264	7.829	1.00	55.21	O
ATOM	11221	N	GLN	B	261	58.737	69.194	8.147	1.00	54.18	N
ATOM	11223	CA	GLN	B	261	58.153	67.845	8.209	1.00	50.65	C
ATOM	11225	CB	GLN	B	261	58.567	67.059	6.972	1.00	51.99	C
ATOM	11228	CG	GLN	B	261	58.358	67.807	5.646	1.00	56.17	C
ATOM	11231	CD	GLN	B	261	58.504	66.899	4.428	1.00	60.06	C
ATOM	11232	OE1	GLN	B	261	57.504	66.484	3.834	1.00	61.16	O
ATOM	11233	NE2	GLN	B	261	59.749	66.580	4.064	1.00	60.08	N
ATOM	11236	C	GLN	B	261	58.488	67.031	9.477	1.00	47.52	C
ATOM	11237	O	GLN	B	261	58.048	65.887	9.612	1.00	47.37	O
ATOM	11238	N	ASP	B	262	59.264	67.596	10.400	1.00	43.22	N
ATOM	11240	CA	ASP	B	262	59.664	66.851	11.604	1.00	42.21	C
ATOM	11242	CB	ASP	B	262	60.687	65.719	11.282	1.00	41.05	C
ATOM	11245	CG	ASP	B	262	61.972	66.234	10.669	1.00	43.12	C
ATOM	11246	OD1	ASP	B	262	62.663	65.474	9.948	1.00	35.33	O
ATOM	11247	OD2	ASP	B	262	62.368	67.400	10.856	1.00	45.36	O
ATOM	11248	C	ASP	B	262	60.181	67.779	12.682	1.00	36.98	C
ATOM	11249	O	ASP	B	262	60.236	68.981	12.484	1.00	39.94	O
ATOM	11250	N	PHE	B	263	60.544	67.218	13.825	1.00	34.72	N
ATOM	11252	CA	PHE	B	263	60.844	68.006	15.018	1.00	35.92	C
ATOM	11254	CB	PHE	B	263	61.104	67.077	16.187	1.00	36.71	C
ATOM	11257	CG	PHE	B	263	61.174	67.757	17.494	1.00	39.61	C
ATOM	11258	CD1	PHE	B	263	60.031	67.940	18.255	1.00	43.44	C
ATOM	11260	CE1	PHE	B	263	60.089	68.564	19.497	1.00	41.38	C
ATOM	11262	CZ	PHE	B	263	61.295	69.004	19.980	1.00	44.10	C
ATOM	11264	CE2	PHE	B	263	62.456	68.808	19.235	1.00	44.59	C
ATOM	11266	CD2	PHE	B	263	62.389	68.186	17.999	1.00	44.63	C
ATOM	11268	C	PHE	B	263	62.041	68.906	14.790	1.00	39.07	C
ATOM	11269	O	PHE	B	263	62.069	70.060	15.222	1.00	37.31	O
ATOM	11270	N	ILE	B	264	63.026	68.369	14.084	1.00	41.38	N
ATOM	11272	CA	ILE	B	264	64.202	69.125	13.740	1.00	41.92	C
ATOM	11274	CB	ILE	B	264	65.255	68.210	13.091	1.00	45.68	C
ATOM	11276	CG1	ILE	B	264	65.754	67.154	14.092	1.00	46.61	C

373/514

Figure 5

ATOM	11279	CD1	ILE	B	264	66.604	66.004	13.442	1.00	44.67	C
ATOM	11283	CG2	ILE	B	264	66.438	69.040	12.548	1.00	46.67	C
ATOM	11287	C	ILE	B	264	63.863	70.301	12.828	1.00	41.25	C
ATOM	11288	O	ILE	B	264	64.314	71.414	13.091	1.00	46.56	O
ATOM	11289	N	ASP	B	265	63.094	70.075	11.759	1.00	43.33	N
ATOM	11291	CA	ASP	B	265	62.776	71.153	10.793	1.00	41.64	C
ATOM	11293	CB	ASP	B	265	61.892	70.687	9.623	1.00	40.51	C
ATOM	11293	CB	ASP	B	265	62.629	69.800	8.588	1.00	46.45	C
ATOM	11296	CG	ASP	B	265	63.886	69.866	8.467	1.00	44.40	O
ATOM	11297	OD1	ASP	B	265	61.995	69.012	7.818	1.00	45.61	O
ATOM	11298	OD2	ASP	B	265	62.065	72.265	11.563	1.00	42.00	C
ATOM	11299	C	ASP	B	265	62.405	73.431	11.419	1.00	41.09	O
ATOM	11300	O	ASP	B	265	61.118	71.904	12.424	1.00	43.20	N
ATOM	11301	N	CYS	B	266	60.374	72.915	13.195	1.00	48.35	C
ATOM	11303	CA	CYS	B	266	59.197	72.293	13.951	1.00	47.26	C
ATOM	11305	CB	CYS	B	266	57.968	71.492	12.907	1.00	48.83	S
ATOM	11308	SG	CYS	B	266	61.261	73.674	14.194	1.00	49.09	C
ATOM	11309	C	CYS	B	266	61.049	74.857	14.460	1.00	54.68	O
ATOM	11310	O	CYS	B	266	62.234	72.980	14.759	1.00	48.14	N
ATOM	11311	N	PHE	B	267	63.121	73.579	15.727	1.00	47.35	C
ATOM	11313	CA	PHE	B	267	63.922	72.487	16.441	1.00	47.05	C
ATOM	11315	CB	PHE	B	267	64.571	72.946	17.699	1.00	43.64	C
ATOM	11318	CG	PHE	B	267	64.036	72.613	18.916	1.00	41.93	C
ATOM	11319	CD1	PHE	B	267	64.632	73.037	20.079	1.00	42.51	C
ATOM	11321	CE1	PHE	B	267	65.782	73.813	20.037	1.00	44.32	C
ATOM	11323	CZ	PHE	B	267	66.326	74.163	18.823	1.00	46.37	C
ATOM	11325	CE2	PHE	B	267	65.723	73.725	17.660	1.00	48.19	C
ATOM	11327	CD2	PHE	B	267	64.046	74.532	14.986	1.00	48.72	C
ATOM	11329	C	PHE	B	267	64.254	75.661	15.400	1.00	44.61	O
ATOM	11330	O	PHE	B	267	64.600	74.052	13.879	1.00	51.07	N
ATOM	11331	N	LEU	B	268	65.502	74.843	13.067	1.00	51.95	C
ATOM	11333	CA	LEU	B	268	65.943	74.035	11.851	1.00	50.97	C
ATOM	11335	CB	LEU	B	268	67.413	73.647	11.702	1.00	52.55	C
ATOM	11338	CG	LEU	B	268	68.243	73.721	13.009	1.00	52.33	C
ATOM	11340	CD1	LEU	B	268	67.492	72.255	11.072	1.00	51.41	C
ATOM	11344	CD2	LEU	B	268	64.859	76.163	12.621	1.00	54.96	C
ATOM	11348	C	LEU	B	268	65.518	77.199	12.619	1.00	56.67	O
ATOM	11349	O	LEU	B	268	63.577	76.137	12.274	1.00	56.11	N
ATOM	11350	N	MET	B	269	62.921	77.339	11.789	1.00	60.71	C
ATOM	11352	CA	MET	B	269	61.867	76.986	10.729	1.00	63.23	C
ATOM	11354	CB	MET	B	269	60.479	76.643	11.238	1.00	65.13	C
ATOM	11357	CG	MET	B	269	59.311	76.301	9.864	1.00	70.07	S
ATOM	11360	SD	MET	B	269	60.319	75.242	8.744	1.00	68.18	C
ATOM	11361	CE	MET	B	269	62.364	78.193	12.934	1.00	60.72	C
ATOM	11365	C	MET	B	269	62.023	79.364	12.742	1.00	61.36	O
ATOM	11366	O	MET	B	269	62.301	77.615	14.130	1.00	62.89	N
ATOM	11367	N	LYS	B	270	62.028	78.385	15.345	1.00	61.21	C
ATOM	11369	CA	LYS	B	270	61.617	77.469	16.506	1.00	60.17	C
ATOM	11371	CB	LYS	B	270	61.382	78.174	17.853	1.00	58.46	C
ATOM	11374	CG	LYS	B	270	60.150	79.072	17.844	1.00	56.94	C
ATOM	11377	CD	LYS	B	270	59.830	79.568	19.259	1.00	54.35	C
ATOM	11380	CE	LYS	B	270	58.495	80.173	19.379	1.00	48.36	N
ATOM	11383	NZ	LYS	B	270	63.256	79.196	15.714	1.00	61.23	C
ATOM	11387	C	LYS	B	270	63.142	80.209	16.378	1.00	66.24	O
ATOM	11388	O	LYS	B	270	64.427	78.758	15.279	1.00	62.80	N
ATOM	11389	N	MET	B	271	65.650	79.517	15.494	1.00	65.95	C
ATOM	11391	CA	MET	B	271	66.862	78.614	15.340	1.00	64.73	C
ATOM	11393	CB	MET	B	271	66.930	77.549	16.395	1.00	63.31	C
ATOM	11396	CG	MET	B	271	68.283	76.423	16.127	1.00	63.42	S
ATOM	11399	SD	MET	B	271	69.752	77.547	16.392	1.00	58.05	C
ATOM	11400	CE	MET	B	271	65.779	80.687	14.527	1.00	71.84	O
ATOM	11404	C	MET	B	271	66.503	81.634	14.812	1.00	77.37	C
ATOM	11405	O	MET	B	271	65.093	80.624	13.387	1.00	77.37	N
ATOM	11406	N	GLU	B	272	65.033	81.758	12.460	1.00	80.83	C
ATOM	11408	CA	GLU	B	272	64.467	81.332	11.101	1.00	83.78	C
ATOM	11410	CB	GLU	B	272	65.030	82.131	9.934	1.00	86.43	C
ATOM	11413	CG	GLU	B	272	66.516	81.898	9.728	1.00	89.15	C
ATOM	11416	CD	GLU	B	272	67.031	80.841	10.164	1.00	89.46	O
ATOM	11417	OE1	GLU	B	272	67.171	82.778	9.131	1.00	90.80	O
ATOM	11418	OE2	GLU	B	272	64.206	82.913	13.045	1.00	81.58	C
ATOM	11419	C	GLU	B	272	64.694	84.045	13.122	1.00	82.64	O
ATOM	11420	O	GLU	B	272	62.965	82.638	13.455	1.00	81.25	N
ATOM	11421	N	LYS	B	273	62.296	83.532	14.399	1.00	82.15	C
ATOM	11423	CA	LYS	B	273	60.924	83.000	14.840	1.00	81.95	C
ATOM	11425	CB	LYS	B	273	59.926	82.659	13.709	1.00	82.03	C
ATOM	11428	CG	LYS	B	273	58.550	82.203	14.264	1.00	81.05	C
ATOM	11431	CD	LYS	B	273						C

374/514

Figure 5

ATOM	11434	CE	LYS	B	273	57.751	83.365	14.885	1.00	79.62	C
ATOM	11437	NZ	LYS	B	273	56.329	83.028	15.183	1.00	75.20	N
ATOM	11441	C	LYS	B	273	63.257	83.571	15.588	1.00	83.88	C
ATOM	11442	O	LYS	B	273	64.191	82.776	15.653	1.00	83.50	O
ATOM	11443	N	GLU	B	274	63.067	84.488	16.522	1.00	86.90	N
ATOM	11445	CA	GLU	B	274	63.973	84.585	17.683	1.00	89.06	C
ATOM	11447	CB	GLU	B	274	64.080	83.249	18.452	1.00	88.86	C
ATOM	11450	CG	GLU	B	274	62.776	82.510	18.710	1.00	88.48	C
ATOM	11453	CD	GLU	B	274	62.182	82.816	20.067	1.00	88.40	C
ATOM	11454	OE1	GLU	B	274	62.936	82.857	21.062	1.00	89.80	O
ATOM	11455	OE2	GLU	B	274	60.954	83.007	20.137	1.00	88.12	O
ATOM	11456	C	GLU	B	274	65.407	85.026	17.353	1.00	90.59	C
ATOM	11457	O	GLU	B	274	66.214	85.167	18.269	1.00	92.99	O
ATOM	11458	N	LYS	B	275	65.748	85.238	16.082	1.00	91.48	N
ATOM	11460	CA	LYS	B	275	67.117	85.627	15.744	1.00	92.44	C
ATOM	11462	CB	LYS	B	275	67.416	85.351	14.275	1.00	92.78	C
ATOM	11465	CG	LYS	B	275	68.907	85.374	13.947	1.00	93.12	C
ATOM	11468	CD	LYS	B	275	69.202	84.711	12.617	1.00	92.83	C
ATOM	11471	CE	LYS	B	275	68.617	85.503	11.462	1.00	92.53	C
ATOM	11474	NZ	LYS	B	275	68.766	84.758	10.197	1.00	93.76	N
ATOM	11478	C	LYS	B	275	67.400	87.099	16.080	1.00	93.42	C
ATOM	11479	O	LYS	B	275	68.558	87.495	16.191	1.00	93.24	O
ATOM	11480	N	HIS	B	276	66.339	87.889	16.264	1.00	94.74	N
ATOM	11482	CA	HIS	B	276	66.460	89.293	16.674	1.00	95.98	C
ATOM	11484	CB	HIS	B	276	65.256	90.159	16.145	1.00	97.82	C
ATOM	11487	CG	HIS	B	276	64.840	89.772	14.742	1.00	101.34	C
ATOM	11488	ND1	HIS	B	276	64.914	88.429	14.361	1.00	103.71	N
ATOM	11490	CE1	HIS	B	276	64.452	88.304	13.117	1.00	102.94	C
ATOM	11492	NE2	HIS	B	276	64.067	89.531	12.680	1.00	103.14	N
ATOM	11494	CD2	HIS	B	276	64.274	90.468	13.686	1.00	102.55	C
ATOM	11496	C	HIS	B	276	66.643	89.307	18.209	1.00	96.15	C
ATOM	11497	O	HIS	B	276	67.411	90.122	18.732	1.00	96.46	O
ATOM	11498	N	ASN	B	277	66.002	88.352	18.900	1.00	96.29	N
ATOM	11500	CA	ASN	B	277	66.101	88.174	20.367	1.00	95.53	C
ATOM	11502	CB	ASN	B	277	64.771	87.637	20.941	1.00	96.36	C
ATOM	11505	CG	ASN	B	277	63.540	88.354	20.377	1.00	97.76	C
ATOM	11506	OD1	ASN	B	277	63.239	88.264	19.181	1.00	97.88	O
ATOM	11507	ND2	ASN	B	277	62.813	89.062	21.243	1.00	98.03	N
ATOM	11510	C	ASN	B	277	67.247	87.213	20.741	1.00	94.59	C
ATOM	11511	O	ASN	B	277	67.001	86.069	21.130	1.00	91.06	O
ATOM	11512	N	GLN	B	278	68.488	87.705	20.665	1.00	94.94	N
ATOM	11514	CA	GLN	B	278	69.675	86.842	20.526	1.00	95.13	C
ATOM	11516	CB	GLN	B	278	70.790	87.585	19.757	1.00	97.14	C
ATOM	11519	CG	GLN	B	278	71.948	86.703	19.178	1.00	97.76	C
ATOM	11522	CD	GLN	B	278	71.501	85.392	18.479	1.00	98.09	C
ATOM	11523	OE1	GLN	B	278	70.352	85.250	18.044	1.00	97.19	O
ATOM	11524	NE2	GLN	B	278	72.431	84.450	18.357	1.00	97.32	N
ATOM	11527	C	GLN	B	278	70.257	86.167	21.784	1.00	92.71	C
ATOM	11528	O	GLN	B	278	71.153	85.327	21.664	1.00	94.45	O
ATOM	11529	N	PRO	B	279	69.802	86.519	22.980	1.00	88.02	N
ATOM	11530	CA	PRO	B	279	69.864	85.562	24.097	1.00	85.59	C
ATOM	11532	CB	PRO	B	279	69.755	86.470	25.343	1.00	86.43	C
ATOM	11535	CG	PRO	B	279	69.811	87.907	24.813	1.00	86.87	C
ATOM	11538	CD	PRO	B	279	69.321	87.844	23.404	1.00	87.02	C
ATOM	11541	C	PRO	B	279	68.724	84.489	24.029	1.00	81.31	C
ATOM	11542	O	PRO	B	279	67.882	84.464	24.927	1.00	82.10	O
ATOM	11543	N	SER	B	280	68.716	83.618	23.007	1.00	75.50	N
ATOM	11545	CA	SER	B	280	67.609	82.656	22.765	1.00	70.81	C
ATOM	11547	CB	SER	B	280	67.338	82.485	21.263	1.00	70.14	C
ATOM	11550	OG	SER	B	280	66.106	81.806	21.013	1.00	66.92	O
ATOM	11552	C	SER	B	280	67.788	81.249	23.362	1.00	69.19	C
ATOM	11553	O	SER	B	280	68.890	80.708	23.431	1.00	65.60	O
ATOM	11554	N	GLU	B	281	66.651	80.667	23.735	1.00	68.59	N
ATOM	11556	CA	GLU	B	281	66.540	79.318	24.300	1.00	65.52	C
ATOM	11558	CB	GLU	B	281	65.150	79.163	24.905	1.00	67.67	C
ATOM	11561	CG	GLU	B	281	65.121	79.002	26.410	1.00	74.74	C
ATOM	11564	CD	GLU	B	281	65.902	80.059	27.176	1.00	77.16	C
ATOM	11565	OE1	GLU	B	281	67.104	79.821	27.430	1.00	78.42	O
ATOM	11566	OE2	GLU	B	281	65.304	81.099	27.551	1.00	77.76	O
ATOM	11567	C	GLU	B	281	66.720	78.198	23.280	1.00	60.69	C
ATOM	11568	O	GLU	B	281	67.050	77.071	23.633	1.00	57.09	O
ATOM	11569	N	PHE	B	282	66.467	78.506	22.017	1.00	56.75	N
ATOM	11571	CA	PHE	B	282	66.534	77.510	20.973	1.00	52.96	C
ATOM	11573	CB	PHE	B	282	65.377	77.726	19.993	1.00	50.22	C
ATOM	11576	CG	PHE	B	282	64.022	77.597	20.623	1.00	44.28	C
ATOM	11577	CD1	PHE	B	282	63.425	78.673	21.240	1.00	46.37	C

375/514

Figure 5

ATOM	11579	CE1	PHE	B	282	62.172	78.555	21.837	1.00	45.72	C
ATOM	11581	CZ	PHE	B	282	61.515	77.350	21.802	1.00	47.36	C
ATOM	11583	CE2	PHE	B	282	62.112	76.270	21.181	1.00	43.71	C
ATOM	11585	CD2	PHE	B	282	63.354	76.404	20.599	1.00	38.92	C
ATOM	11587	C	PHE	B	282	67.888	77.600	20.269	1.00	52.45	C
ATOM	11588	O	PHE	B	282	68.103	78.492	19.463	1.00	55.88	O
ATOM	11589	N	THR	B	283	68.804	76.698	20.616	1.00	49.98	N
ATOM	11591	CA	THR	B	283	70.087	76.515	19.913	1.00	47.66	C
ATOM	11593	CB	THR	B	283	71.265	76.862	20.826	1.00	47.23	C
ATOM	11595	OG1	THR	B	283	71.364	75.864	21.853	1.00	49.13	O
ATOM	11597	CG2	THR	B	283	71.053	78.200	21.581	1.00	45.37	C
ATOM	11601	C	THR	B	283	70.300	75.062	19.488	1.00	47.12	C
ATOM	11602	O	THR	B	283	69.602	74.168	19.920	1.00	44.81	O
ATOM	11603	N	ILE	B	284	71.318	74.818	18.682	1.00	47.29	N
ATOM	11605	CA	ILE	B	284	71.620	73.454	18.288	1.00	46.14	C
ATOM	11607	CB	ILE	B	284	72.835	73.404	17.347	1.00	46.90	C
ATOM	11609	CG1	ILE	B	284	72.602	74.254	16.075	1.00	46.50	C
ATOM	11612	CD1	ILE	B	284	71.411	73.857	15.228	1.00	46.93	C
ATOM	11616	CG2	ILE	B	284	73.176	71.946	16.978	1.00	47.41	C
ATOM	11620	C	ILE	B	284	71.861	72.601	19.536	1.00	47.76	C
ATOM	11621	O	ILE	B	284	71.511	71.423	19.564	1.00	46.83	O
ATOM	11622	N	GLU	B	285	72.448	73.200	20.571	1.00	51.41	N
ATOM	11624	CA	GLU	B	285	72.642	72.514	21.859	1.00	53.32	C
ATOM	11626	CB	GLU	B	285	73.461	73.370	22.850	1.00	55.94	C
ATOM	11629	CG	GLU	B	285	74.708	72.675	23.381	1.00	61.21	C
ATOM	11632	CD	GLU	B	285	75.254	73.318	24.649	1.00	65.63	C
ATOM	11633	OE1	GLU	B	285	75.609	74.528	24.612	1.00	70.21	O
ATOM	11634	OE2	GLU	B	285	75.330	72.613	25.683	1.00	65.67	O
ATOM	11635	C	GLU	B	285	71.295	72.088	22.479	1.00	48.82	C
ATOM	11636	O	GLU	B	285	71.104	70.910	22.744	1.00	37.69	O
ATOM	11637	N	SER	B	286	70.384	73.051	22.688	1.00	45.91	N
ATOM	11639	CA	SER	B	286	69.017	72.781	23.161	1.00	44.75	C
ATOM	11641	CB	SER	B	286	68.127	74.005	22.983	1.00	44.92	C
ATOM	11644	OG	SER	B	286	68.652	75.143	23.622	1.00	50.05	O
ATOM	11646	C	SER	B	286	68.352	71.660	22.381	1.00	44.42	C
ATOM	11647	O	SER	B	286	67.669	70.832	22.943	1.00	44.79	O
ATOM	11648	N	LEU	B	287	68.537	71.673	21.068	1.00	46.13	N
ATOM	11650	CA	LEU	B	287	67.895	70.734	20.169	1.00	45.53	C
ATOM	11652	CB	LEU	B	287	68.146	71.147	18.708	1.00	46.81	C
ATOM	11655	CG	LEU	B	287	67.771	70.161	17.597	1.00	49.54	C
ATOM	11657	CD1	LEU	B	287	66.356	69.594	17.798	1.00	51.62	C
ATOM	11661	CD2	LEU	B	287	67.911	70.842	16.253	1.00	48.78	C
ATOM	11665	C	LEU	B	287	68.432	69.346	20.432	1.00	43.23	C
ATOM	11666	O	LEU	B	287	67.674	68.412	20.536	1.00	44.79	O
ATOM	11667	N	GLU	B	288	69.745	69.221	20.521	1.00	44.08	N
ATOM	11669	CA	GLU	B	288	70.380	67.951	20.843	1.00	45.36	C
ATOM	11671	CB	GLU	B	288	71.890	68.140	20.962	1.00	46.06	C
ATOM	11674	CG	GLU	B	288	72.649	68.211	19.659	1.00	47.63	C
ATOM	11677	CD	GLU	B	288	74.135	68.470	19.893	1.00	55.24	C
ATOM	11678	OE1	GLU	B	288	74.533	68.781	21.056	1.00	55.65	O
ATOM	11679	OE2	GLU	B	288	74.914	68.350	18.920	1.00	53.00	O
ATOM	11680	C	GLU	B	288	69.853	67.399	22.172	1.00	42.79	C
ATOM	11681	O	GLU	B	288	69.509	66.210	22.279	1.00	42.43	O
ATOM	11682	N	ASN	B	289	69.811	68.274	23.176	1.00	39.50	N
ATOM	11684	CA	ASN	B	289	69.354	67.922	24.514	1.00	39.66	C
ATOM	11686	CB	ASN	B	289	69.491	69.104	25.458	1.00	41.74	C
ATOM	11689	CG	ASN	B	289	70.928	69.473	25.723	1.00	44.62	C
ATOM	11690	OD1	ASN	B	289	71.248	70.649	25.959	1.00	46.06	O
ATOM	11691	ND2	ASN	B	289	71.807	68.473	25.700	1.00	38.92	N
ATOM	11694	C	ASN	B	289	67.919	67.476	24.531	1.00	38.63	C
ATOM	11695	O	ASN	B	289	67.607	66.432	25.091	1.00	36.57	O
ATOM	11696	N	THR	B	290	67.061	68.277	23.908	1.00	35.13	N
ATOM	11698	CA	THR	B	290	65.639	68.012	23.841	1.00	37.99	C
ATOM	11700	CB	THR	B	290	64.888	69.238	23.221	1.00	42.32	C
ATOM	11702	OG1	THR	B	290	65.090	70.426	24.027	1.00	40.59	O
ATOM	11704	CG2	THR	B	290	63.367	69.019	23.230	1.00	42.28	C
ATOM	11708	C	THR	B	290	65.337	66.734	23.056	1.00	36.28	C
ATOM	11709	O	THR	B	290	64.349	66.051	23.311	1.00	40.63	O
ATOM	11710	N	ALA	B	291	66.200	66.383	22.126	1.00	34.55	N
ATOM	11712	CA	ALA	B	291	65.967	65.215	21.304	1.00	34.26	C
ATOM	11714	CB	ALA	B	291	66.757	65.312	20.017	1.00	35.61	C
ATOM	11718	C	ALA	B	291	66.323	63.942	22.043	1.00	35.81	C
ATOM	11719	O	ALA	B	291	65.584	62.982	21.945	1.00	38.84	O
ATOM	11720	N	VAL	B	292	67.449	63.915	22.765	1.00	37.82	N
ATOM	11722	CA	VAL	B	292	67.804	62.729	23.566	1.00	39.60	C
ATOM	11724	CB	VAL	B	292	69.249	62.741	24.163	1.00	42.13	C

376/514

Figure 5

ATOM	11726	CG1 VAL B 292	70.281	62.701	23.054	1.00	44.63	C
ATOM	11730	CG2 VAL B 292	69.491	63.927	25.055	1.00	44.95	C
ATOM	11734	C VAL B 292	66.812	62.494	24.687	1.00	36.96	C
ATOM	11735	O VAL B 292	66.443	61.340	24.951	1.00	37.80	O
ATOM	11736	N ASP B 293	66.359	63.576	25.317	1.00	34.96	N
ATOM	11738	CA ASP B 293	65.292	63.501	26.327	1.00	36.11	C
ATOM	11740	CB ASP B 293	64.866	64.896	26.830	1.00	40.30	C
ATOM	11743	CG ASP B 293	65.871	65.530	27.833	1.00	46.08	C
ATOM	11744	OD1 ASP B 293	65.622	66.687	28.247	1.00	51.67	O
ATOM	11745	OD2 ASP B 293	66.931	64.995	28.256	1.00	50.65	O
ATOM	11746	C ASP B 293	64.080	62.770	25.758	1.00	33.25	C
ATOM	11747	O ASP B 293	63.503	61.921	26.429	1.00	35.77	O
ATOM	11748	N LEU B 294	63.714	63.069	24.512	1.00	32.63	N
ATOM	11750	CA LEU B 294	62.539	62.446	23.893	1.00	32.76	C
ATOM	11752	CB LEU B 294	62.115	63.106	22.578	1.00	32.03	C
ATOM	11755	CG LEU B 294	61.636	64.550	22.704	1.00	32.83	C
ATOM	11757	CD1 LEU B 294	61.312	65.047	21.340	1.00	35.84	C
ATOM	11761	CD2 LEU B 294	60.423	64.685	23.609	1.00	37.92	C
ATOM	11765	C LEU B 294	62.787	61.004	23.650	1.00	33.41	C
ATOM	11766	O LEU B 294	61.912	60.196	23.972	1.00	41.06	O
ATOM	11767	N PHE B 295	63.958	60.665	23.101	1.00	30.96	N
ATOM	11769	CA PHE B 295	64.358	59.248	22.995	1.00	29.64	C
ATOM	11771	CB PHE B 295	65.735	59.075	22.356	1.00	31.56	C
ATOM	11774	CG PHE B 295	65.719	59.187	20.868	1.00	32.04	C
ATOM	11775	CD1 PHE B 295	65.210	58.157	20.093	1.00	35.06	C
ATOM	11777	CE1 PHE B 295	65.163	58.273	18.704	1.00	37.76	C
ATOM	11779	CZ PHE B 295	65.620	59.440	18.094	1.00	38.09	C
ATOM	11781	CE2 PHE B 295	66.112	60.479	18.877	1.00	33.63	C
ATOM	11783	CD2 PHE B 295	66.152	60.350	20.245	1.00	30.27	C
ATOM	11785	C PHE B 295	64.337	58.545	24.334	1.00	27.55	C
ATOM	11786	O PHE B 295	63.928	57.414	24.406	1.00	32.05	O
ATOM	11787	N GLY B 296	64.740	59.222	25.398	1.00	31.29	N
ATOM	11789	CA GLY B 296	64.911	58.574	26.689	1.00	34.14	C
ATOM	11792	C GLY B 296	63.595	58.343	27.381	1.00	35.67	C
ATOM	11793	O GLY B 296	63.279	57.231	27.804	1.00	40.30	O
ATOM	11794	N ALA B 297	62.822	59.412	27.484	1.00	36.38	N
ATOM	11796	CA ALA B 297	61.443	59.350	27.982	1.00	38.26	C
ATOM	11798	CB ALA B 297	60.931	60.767	28.192	1.00	38.71	C
ATOM	11802	C ALA B 297	60.481	58.587	27.054	1.00	36.36	C
ATOM	11803	O ALA B 297	59.552	57.909	27.517	1.00	40.05	O
ATOM	11804	N GLY B 298	60.700	58.707	25.750	1.00	35.07	N
ATOM	11806	CA GLY B 298	59.826	58.084	24.764	1.00	38.35	C
ATOM	11809	C GLY B 298	59.868	56.559	24.683	1.00	40.65	C
ATOM	11810	O GLY B 298	58.929	55.921	24.213	1.00	44.58	O
ATOM	11811	N THR B 299	60.939	55.964	25.180	1.00	41.30	N
ATOM	11813	CA THR B 299	61.261	54.609	24.819	1.00	39.38	C
ATOM	11815	CB THR B 299	62.721	54.580	24.380	1.00	42.34	C
ATOM	11817	OG1 THR B 299	62.832	55.317	23.156	1.00	39.13	O
ATOM	11819	CG2 THR B 299	63.150	53.174	23.977	1.00	49.10	C
ATOM	11823	C THR B 299	60.983	53.596	25.907	1.00	36.34	C
ATOM	11824	O THR B 299	60.170	52.707	25.712	1.00	34.64	O
ATOM	11825	N GLU B 300	61.641	53.730	27.050	1.00	35.94	N
ATOM	11827	CA GLU B 300	61.613	52.681	28.083	1.00	37.68	C
ATOM	11829	CB GLU B 300	62.491	53.088	29.275	1.00	40.99	C
ATOM	11832	CG GLU B 300	63.204	52.004	30.093	1.00	49.09	C
ATOM	11835	CD GLU B 300	62.596	50.591	30.159	1.00	59.54	C
ATOM	11836	OE1 GLU B 300	62.105	50.215	31.266	1.00	67.68	O
ATOM	11837	OE2 GLU B 300	62.689	49.812	29.160	1.00	62.82	O
ATOM	11838	C GLU B 300	60.206	52.399	28.595	1.00	37.09	C
ATOM	11839	O GLU B 300	59.773	51.250	28.609	1.00	31.01	O
ATOM	11840	N THR B 301	59.513	53.460	29.033	1.00	39.14	N
ATOM	11842	CA THR B 301	58.242	53.341	29.754	1.00	34.02	C
ATOM	11844	CB THR B 301	57.775	54.719	30.265	1.00	38.10	C
ATOM	11846	OG1 THR B 301	58.874	55.474	30.790	1.00	37.56	O
ATOM	11848	CG2 THR B 301	56.900	54.563	31.463	1.00	37.75	C
ATOM	11852	C THR B 301	57.196	52.785	28.829	1.00	32.36	C
ATOM	11853	O THR B 301	56.371	51.956	29.209	1.00	29.01	O
ATOM	11854	N THR B 302	57.256	53.234	27.583	1.00	29.12	N
ATOM	11856	CA THR B 302	56.313	52.792	26.596	1.00	27.50	C
ATOM	11858	CB THR B 302	56.533	53.584	25.340	1.00	29.87	C
ATOM	11860	OG1 THR B 302	56.649	54.990	25.649	1.00	29.74	O
ATOM	11862	CG2 THR B 302	55.344	53.450	24.436	1.00	29.39	C
ATOM	11866	C THR B 302	56.545	51.317	26.321	1.00	29.80	C
ATOM	11867	O THR B 302	55.609	50.512	26.189	1.00	25.37	O
ATOM	11868	N SER B 303	57.827	50.973	26.238	1.00	32.48	N
ATOM	11870	CA SER B 303	58.256	49.640	25.825	1.00	31.83	C

377/514

Figure 5

ATOM	11872	CB	SER	B	303	59.763	49.619	25.566	1.00	32.59	C
ATOM	11875	OG	SER	B	303	60.190	48.319	25.210	1.00	39.59	O
ATOM	11877	C	SER	B	303	57.885	48.686	26.933	1.00	28.96	C
ATOM	11878	O	SER	B	303	57.309	47.627	26.713	1.00	26.94	O
ATOM	11879	N	THR	B	304	58.168	49.120	28.144	1.00	31.19	N
ATOM	11881	CA	THR	B	304	57.878	48.351	29.338	1.00	33.09	C
ATOM	11883	CB	THR	B	304	58.431	49.102	30.527	1.00	30.24	C
ATOM	11885	OG1	THR	B	304	59.851	49.180	30.372	1.00	31.10	O
ATOM	11887	CG2	THR	B	304	58.231	48.338	31.795	1.00	29.39	C
ATOM	11891	C	THR	B	304	56.385	48.114	29.493	1.00	34.08	C
ATOM	11892	O	THR	B	304	55.955	46.989	29.718	1.00	30.20	O
ATOM	11893	N	THR	B	305	55.609	49.185	29.335	1.00	34.68	N
ATOM	11895	CA	THR	B	305	54.168	49.103	29.417	1.00	31.71	C
ATOM	11897	CB	THR	B	305	53.581	50.476	29.099	1.00	35.82	C
ATOM	11899	OG1	THR	B	305	53.943	51.383	30.148	1.00	35.93	O
ATOM	11901	CG2	THR	B	305	52.052	50.460	29.136	1.00	36.37	C
ATOM	11905	C	THR	B	305	53.646	48.040	28.468	1.00	30.11	C
ATOM	11906	O	THR	B	305	52.867	47.184	28.888	1.00	28.55	O
ATOM	11907	N	LEU	B	306	54.107	48.069	27.210	1.00	28.89	N
ATOM	11909	CA	LEU	B	306	53.702	47.077	26.212	1.00	30.27	C
ATOM	11911	CB	LEU	B	306	54.413	47.294	24.904	1.00	29.29	C
ATOM	11914	CG	LEU	B	306	54.085	48.565	24.154	1.00	33.32	C
ATOM	11916	CD1	LEU	B	306	55.001	48.641	22.935	1.00	33.01	C
ATOM	11920	CD2	LEU	B	306	52.619	48.591	23.749	1.00	36.01	C
ATOM	11924	C	LEU	B	306	54.016	45.665	26.643	1.00	33.86	C
ATOM	11925	O	LEU	B	306	53.185	44.766	26.508	1.00	32.27	O
ATOM	11926	N	ARG	B	307	55.237	45.479	27.137	1.00	35.00	N
ATOM	11928	CA	ARG	B	307	55.727	44.163	27.539	1.00	34.66	C
ATOM	11930	CB	ARG	B	307	57.199	44.263	27.967	1.00	36.21	C
ATOM	11933	CG	ARG	B	307	57.992	42.945	27.982	1.00	37.82	C
ATOM	11936	CD	ARG	B	307	59.269	43.017	28.866	1.00	40.56	C
ATOM	11939	NE	ARG	B	307	59.920	44.310	28.667	1.00	40.58	N
ATOM	11941	CZ	ARG	B	307	60.687	44.938	29.534	1.00	40.84	C
ATOM	11942	NH1	ARG	B	307	60.978	44.415	30.706	1.00	42.42	N
ATOM	11945	NH2	ARG	B	307	61.169	46.131	29.215	1.00	51.90	N
ATOM	11948	C	ARG	B	307	54.882	43.659	28.687	1.00	31.61	C
ATOM	11949	O	ARG	B	307	54.512	42.486	28.757	1.00	30.70	O
ATOM	11950	N	TYR	B	308	54.554	44.568	29.585	1.00	29.66	N
ATOM	11952	CA	TYR	B	308	53.749	44.213	30.731	1.00	28.76	C
ATOM	11954	CB	TYR	B	308	53.806	45.291	31.784	1.00	25.72	C
ATOM	11957	CG	TYR	B	308	54.023	44.774	33.181	1.00	26.21	C
ATOM	11958	CD1	TYR	B	308	54.825	45.476	34.081	1.00	28.70	C
ATOM	11960	CE1	TYR	B	308	55.008	45.015	35.373	1.00	29.67	C
ATOM	11962	CZ	TYR	B	308	54.384	43.851	35.771	1.00	28.76	C
ATOM	11963	OH	TYR	B	308	54.544	43.390	37.052	1.00	31.06	O
ATOM	11965	CE2	TYR	B	308	53.583	43.143	34.895	1.00	27.23	C
ATOM	11967	CD2	TYR	B	308	53.409	43.602	33.619	1.00	24.46	C
ATOM	11969	C	TYR	B	308	52.318	43.949	30.302	1.00	30.66	C
ATOM	11970	O	TYR	B	308	51.669	43.038	30.818	1.00	29.93	O
ATOM	11971	N	ALA	B	309	51.847	44.690	29.307	1.00	29.89	N
ATOM	11973	CA	ALA	B	309	50.514	44.434	28.780	1.00	29.36	C
ATOM	11975	CB	ALA	B	309	50.156	45.459	27.704	1.00	28.43	C
ATOM	11979	C	ALA	B	309	50.369	42.992	28.267	1.00	27.41	C
ATOM	11980	O	ALA	B	309	49.407	42.324	28.581	1.00	31.07	O
ATOM	11981	N	LEU	B	310	51.336	42.504	27.510	1.00	30.30	N
ATOM	11983	CA	LEU	B	310	51.239	41.177	26.910	1.00	34.64	C
ATOM	11985	CB	LEU	B	310	52.322	40.978	25.859	1.00	36.77	C
ATOM	11988	CG	LEU	B	310	52.346	41.950	24.682	1.00	41.03	C
ATOM	11990	CD1	LEU	B	310	53.507	41.591	23.758	1.00	45.14	C
ATOM	11994	CD2	LEU	B	310	51.043	41.895	23.918	1.00	43.92	C
ATOM	11998	C	LEU	B	310	51.373	40.072	27.953	1.00	35.87	C
ATOM	11999	O	LEU	B	310	50.812	38.980	27.799	1.00	35.84	O
ATOM	12000	N	LEU	B	311	52.126	40.349	29.006	1.00	35.80	N
ATOM	12002	CA	LEU	B	311	52.242	39.399	30.094	1.00	36.94	C
ATOM	12004	CB	LEU	B	311	53.263	39.893	31.127	1.00	36.49	C
ATOM	12007	CG	LEU	B	311	53.419	38.985	32.360	1.00	31.37	C
ATOM	12009	CD1	LEU	B	311	53.669	37.527	31.963	1.00	27.26	C
ATOM	12013	CD2	LEU	B	311	54.530	39.506	33.221	1.00	28.96	C
ATOM	12017	C	LEU	B	311	50.881	39.217	30.761	1.00	37.08	C
ATOM	12018	O	LEU	B	311	50.458	38.113	31.090	1.00	34.60	O
ATOM	12019	N	LEU	B	312	50.197	40.331	30.951	1.00	40.08	N
ATOM	12021	CA	LEU	B	312	48.907	40.336	31.622	1.00	37.31	C
ATOM	12023	CB	LEU	B	312	48.531	41.773	31.969	1.00	31.54	C
ATOM	12026	CG	LEU	B	312	49.375	42.307	33.110	1.00	29.55	C
ATOM	12028	CD1	LEU	B	312	49.316	43.825	33.214	1.00	32.48	C
ATOM	12032	CD2	LEU	B	312	48.962	41.682	34.424	1.00	31.10	C

378/514

Figure 5

ATOM	12036	C	LEU B 312	47.849	39.680	30.738	1.00	36.05	C
ATOM	12037	O	LEU B 312	46.928	39.065	31.222	1.00	36.18	O
ATOM	12038	N	LEU B 313	48.019	39.794	29.435	1.00	39.14	N
ATOM	12040	CA	LEU B 313	47.069	39.238	28.479	1.00	42.67	C
ATOM	12042	CB	LEU B 313	47.190	40.006	27.145	1.00	42.81	C
ATOM	12045	CG	LEU B 313	46.751	41.485	27.133	1.00	40.03	C
ATOM	12047	CD1	LEU B 313	47.175	42.174	25.866	1.00	41.13	C
ATOM	12051	CD2	LEU B 313	45.268	41.614	27.238	1.00	44.82	C
ATOM	12055	C	LEU B 313	47.299	37.718	28.321	1.00	42.64	C
ATOM	12056	O	LEU B 313	46.383	36.958	28.003	1.00	42.54	O
ATOM	12057	N	LEU B 314	48.526	37.279	28.575	1.00	44.31	N
ATOM	12059	CA	LEU B 314	48.806	35.851	28.721	1.00	42.72	C
ATOM	12061	CB	LEU B 314	50.296	35.588	28.820	1.00	42.99	C
ATOM	12064	CG	LEU B 314	51.105	35.540	27.552	1.00	42.56	C
ATOM	12066	CD1	LEU B 314	52.547	35.323	27.968	1.00	45.60	C
ATOM	12070	CD2	LEU B 314	50.623	34.435	26.621	1.00	42.23	C
ATOM	12074	C	LEU B 314	48.191	35.301	29.982	1.00	38.88	C
ATOM	12075	O	LEU B 314	47.608	34.251	29.942	1.00	42.25	O
ATOM	12076	N	LYS B 315	48.360	35.994	31.101	1.00	39.20	N
ATOM	12078	CA	LYS B 315	47.841	35.510	32.380	1.00	45.28	C
ATOM	12080	CB	LYS B 315	48.381	36.308	33.576	1.00	44.53	C
ATOM	12083	CG	LYS B 315	47.820	35.784	34.910	1.00	47.88	C
ATOM	12086	CD	LYS B 315	48.754	36.014	36.067	1.00	52.84	C
ATOM	12089	CE	LYS B 315	48.343	35.219	37.306	1.00	56.01	C
ATOM	12092	NZ	LYS B 315	48.780	33.783	37.264	1.00	57.08	N
ATOM	12096	C	LYS B 315	46.317	35.526	32.433	1.00	46.86	C
ATOM	12097	O	LYS B 315	45.714	34.706	33.127	1.00	48.68	O
ATOM	12098	N	HIS B 316	45.707	36.457	31.704	1.00	48.03	N
ATOM	12100	CA	HIS B 316	44.263	36.652	31.738	1.00	47.77	C
ATOM	12102	CB	HIS B 316	43.942	38.042	32.287	1.00	44.95	C
ATOM	12105	CG	HIS B 316	44.509	38.299	33.654	1.00	43.68	C
ATOM	12106	ND1	HIS B 316	43.828	38.000	34.810	1.00	43.30	N
ATOM	12108	CE1	HIS B 316	44.555	38.355	35.858	1.00	41.75	C
ATOM	12110	NE2	HIS B 316	45.692	38.866	35.422	1.00	40.58	N
ATOM	12112	CD2	HIS B 316	45.690	38.839	34.048	1.00	44.83	C
ATOM	12114	C	HIS B 316	43.668	36.396	30.331	1.00	49.33	C
ATOM	12115	O	HIS B 316	43.322	37.316	29.609	1.00	48.74	O
ATOM	12116	N	PRO B 317	43.583	35.128	29.928	1.00	54.10	N
ATOM	12117	CA	PRO B 317	43.051	34.795	28.603	1.00	54.52	C
ATOM	12119	CB	PRO B 317	43.166	33.267	28.551	1.00	52.87	C
ATOM	12122	CG	PRO B 317	43.252	32.840	29.956	1.00	51.93	C
ATOM	12125	CD	PRO B 317	43.999	33.913	30.664	1.00	52.95	C
ATOM	12128	C	PRO B 317	41.611	35.237	28.405	1.00	56.08	C
ATOM	12129	O	PRO B 317	41.263	35.526	27.283	1.00	54.33	O
ATOM	12130	N	GLU B 318	40.796	35.274	29.455	1.00	59.96	N
ATOM	12132	CA	GLU B 318	39.414	35.761	29.342	1.00	62.84	C
ATOM	12134	CB	GLU B 318	38.701	35.644	30.684	1.00	68.33	C
ATOM	12137	CG	GLU B 318	38.151	34.262	30.985	1.00	75.43	C
ATOM	12140	CD	GLU B 318	38.009	34.018	32.479	1.00	82.96	C
ATOM	12141	OE1	GLU B 318	37.444	32.967	32.859	1.00	87.35	O
ATOM	12142	OE2	GLU B 318	38.468	34.876	33.278	1.00	88.63	O
ATOM	12143	C	GLU B 318	39.334	37.226	28.916	1.00	57.99	C
ATOM	12144	O	GLU B 318	38.493	37.612	28.107	1.00	59.79	O
ATOM	12145	N	VAL B 319	40.190	38.041	29.509	1.00	51.89	N
ATOM	12147	CA	VAL B 319	40.272	39.445	29.173	1.00	48.11	C
ATOM	12149	CB	VAL B 319	41.300	40.141	30.052	1.00	46.50	C
ATOM	12151	CG1	VAL B 319	41.499	41.600	29.593	1.00	44.79	C
ATOM	12155	CG2	VAL B 319	40.879	40.055	31.526	1.00	45.81	C
ATOM	12159	C	VAL B 319	40.693	39.612	27.717	1.00	47.51	C
ATOM	12160	O	VAL B 319	40.116	40.395	26.960	1.00	48.97	O
ATOM	12161	N	THR B 320	41.704	38.865	27.322	1.00	43.71	N
ATOM	12163	CA	THR B 320	42.178	38.929	25.960	1.00	43.54	C
ATOM	12165	CB	THR B 320	43.376	38.018	25.839	1.00	42.83	C
ATOM	12167	OG1	THR B 320	44.453	38.628	26.557	1.00	45.66	O
ATOM	12169	CG2	THR B 320	43.879	37.889	24.397	1.00	39.81	C
ATOM	12173	C	THR B 320	41.099	38.610	24.930	1.00	42.70	C
ATOM	12174	O	THR B 320	40.999	39.275	23.909	1.00	44.80	O
ATOM	12175	N	ALA B 321	40.272	37.614	25.207	1.00	44.93	N
ATOM	12177	CA	ALA B 321	39.246	37.196	24.249	1.00	46.10	C
ATOM	12179	CB	ALA B 321	38.593	35.905	24.674	1.00	44.12	C
ATOM	12183	C	ALA B 321	38.196	38.279	24.066	1.00	46.26	C
ATOM	12184	O	ALA B 321	37.777	38.527	22.933	1.00	48.24	O
ATOM	12185	N	LYS B 322	37.786	38.925	25.160	1.00	43.98	N
ATOM	12187	CA	LYS B 322	36.810	40.016	25.067	1.00	46.81	C
ATOM	12189	CB	LYS B 322	36.374	40.502	26.451	1.00	46.38	C
ATOM	12192	CG	LYS B 322	35.365	39.603	27.114	1.00	48.81	C

379/514

Figure 5

ATOM	12195	CD	LYS	B	322	34.779	40.262	28.355	1.00	52.57	C
ATOM	12198	CE	LYS	B	322	34.453	39.232	29.420	1.00	54.91	C
ATOM	12201	NZ	LYS	B	322	33.454	39.784	30.380	1.00	60.48	N
ATOM	12205	C	LYS	B	322	37.344	41.189	24.227	1.00	44.92	C
ATOM	12206	O	LYS	B	322	36.594	41.794	23.442	1.00	42.91	O
ATOM	12207	N	VAL	B	323	38.633	41.488	24.396	1.00	41.09	N
ATOM	12209	CA	VAL	B	323	39.326	42.478	23.570	1.00	37.70	C
ATOM	12211	CB	VAL	B	323	40.786	42.689	24.034	1.00	32.10	C
ATOM	12213	CG1	VAL	B	323	41.588	43.486	23.006	1.00	31.21	C
ATOM	12217	CG2	VAL	B	323	40.806	43.381	25.366	1.00	31.20	C
ATOM	12221	C	VAL	B	323	39.325	42.062	22.096	1.00	40.36	C
ATOM	12222	O	VAL	B	323	39.181	42.902	21.194	1.00	42.66	O
ATOM	12223	N	GLN	B	324	39.499	40.780	21.833	1.00	40.69	N
ATOM	12225	CA	GLN	B	324	39.479	40.345	20.452	1.00	42.94	C
ATOM	12227	CB	GLN	B	324	40.108	38.955	20.272	1.00	41.53	C
ATOM	12230	CG	GLN	B	324	41.589	39.059	19.908	1.00	40.85	C
ATOM	12233	CD	GLN	B	324	42.383	37.785	20.114	1.00	44.29	C
ATOM	12234	OE1	GLN	B	324	43.375	37.566	19.429	1.00	44.23	O
ATOM	12235	NE2	GLN	B	324	41.965	36.956	21.064	1.00	43.10	N
ATOM	12238	C	GLN	B	324	38.068	40.466	19.861	1.00	45.79	C
ATOM	12239	O	GLN	B	324	37.965	40.738	18.664	1.00	45.30	O
ATOM	12240	N	GLU	B	325	37.005	40.312	20.680	1.00	47.59	N
ATOM	12242	CA	GLU	B	325	35.609	40.424	20.186	1.00	51.73	C
ATOM	12244	CB	GLU	B	325	34.546	40.171	21.272	1.00	57.74	C
ATOM	12247	CG	GLU	B	325	34.251	38.717	21.651	1.00	64.44	C
ATOM	12250	CD	GLU	B	325	33.438	38.589	22.967	1.00	71.38	C
ATOM	12251	OE1	GLU	B	325	33.973	38.078	23.999	1.00	70.36	O
ATOM	12252	OE2	GLU	B	325	32.249	38.999	22.981	1.00	74.79	O
ATOM	12253	C	GLU	B	325	35.401	41.835	19.672	1.00	51.42	C
ATOM	12254	O	GLU	B	325	34.987	42.042	18.534	1.00	50.44	O
ATOM	12255	N	GLU	B	326	35.694	42.803	20.533	1.00	49.00	N
ATOM	12257	CA	GLU	B	326	35.717	44.202	20.150	1.00	49.23	C
ATOM	12259	CB	GLU	B	326	36.263	45.071	21.289	1.00	50.78	C
ATOM	12262	CG	GLU	B	326	35.263	45.269	22.424	1.00	53.03	C
ATOM	12265	CD	GLU	B	326	35.499	46.535	23.218	1.00	54.81	C
ATOM	12266	OE1	GLU	B	326	34.564	46.972	23.918	1.00	55.68	O
ATOM	12267	OE2	GLU	B	326	36.613	47.088	23.153	1.00	57.25	O
ATOM	12268	C	GLU	B	326	36.516	44.455	18.875	1.00	49.61	C
ATOM	12269	O	GLU	B	326	36.063	45.207	18.010	1.00	53.26	O
ATOM	12270	N	ILE	B	327	37.686	43.840	18.729	1.00	49.05	N
ATOM	12272	CA	ILE	B	327	38.459	44.071	17.515	1.00	49.13	C
ATOM	12274	CB	ILE	B	327	39.927	43.628	17.657	1.00	48.28	C
ATOM	12276	CG1	ILE	B	327	40.657	44.503	18.684	1.00	44.91	C
ATOM	12279	CD1	ILE	B	327	41.939	43.879	19.216	1.00	41.80	C
ATOM	12283	CG2	ILE	B	327	40.660	43.736	16.319	1.00	45.94	C
ATOM	12287	C	ILE	B	327	37.765	43.466	16.276	1.00	52.37	C
ATOM	12288	O	ILE	B	327	37.618	44.162	15.284	1.00	53.70	O
ATOM	12289	N	GLU	B	328	37.297	42.215	16.335	1.00	54.56	N
ATOM	12291	CA	GLU	B	328	36.585	41.605	15.193	1.00	56.63	C
ATOM	12293	CB	GLU	B	328	36.124	40.177	15.508	1.00	60.16	C
ATOM	12296	CG	GLU	B	328	37.166	39.098	15.244	1.00	67.68	C
ATOM	12299	CD	GLU	B	328	37.258	38.695	13.777	1.00	75.82	C
ATOM	12300	OE1	GLU	B	328	37.581	37.510	13.517	1.00	80.86	O
ATOM	12301	OE2	GLU	B	328	37.020	39.551	12.878	1.00	80.83	O
ATOM	12302	C	GLU	B	328	35.366	42.411	14.730	1.00	56.31	C
ATOM	12303	O	GLU	B	328	35.072	42.453	13.540	1.00	56.03	O
ATOM	12304	N	ARG	B	329	34.678	43.056	15.675	1.00	55.54	N
ATOM	12306	CA	ARG	B	329	33.396	43.706	15.427	1.00	51.95	C
ATOM	12308	CB	ARG	B	329	32.563	43.649	16.698	1.00	53.35	C
ATOM	12311	CG	ARG	B	329	31.133	44.137	16.560	1.00	53.54	C
ATOM	12314	CD	ARG	B	329	30.235	43.641	17.673	1.00	53.07	C
ATOM	12317	NE	ARG	B	329	30.943	43.662	18.948	1.00	55.73	N
ATOM	12319	CZ	ARG	B	329	31.198	44.760	19.666	1.00	55.55	C
ATOM	12320	NH1	ARG	B	329	31.876	44.656	20.809	1.00	53.37	N
ATOM	12323	NH2	ARG	B	329	30.786	45.958	19.256	1.00	53.68	N
ATOM	12326	C	ARG	B	329	33.532	45.161	14.974	1.00	50.23	C
ATOM	12327	O	ARG	B	329	32.888	45.562	14.015	1.00	52.14	O
ATOM	12328	N	VAL	B	330	34.357	45.944	15.660	1.00	45.19	N
ATOM	12330	CA	VAL	B	330	34.509	47.374	15.361	1.00	44.83	C
ATOM	12332	CB	VAL	B	330	35.063	48.148	16.584	1.00	42.37	C
ATOM	12334	CG1	VAL	B	330	35.317	49.609	16.225	1.00	39.33	C
ATOM	12338	CG2	VAL	B	330	34.125	48.036	17.771	1.00	40.05	C
ATOM	12342	C	VAL	B	330	35.473	47.618	14.195	1.00	47.84	C
ATOM	12343	O	VAL	B	330	35.306	48.561	13.396	1.00	45.31	O
ATOM	12344	N	ILE	B	331	36.517	46.795	14.165	1.00	51.01	N
ATOM	12346	CA	ILE	B	331	37.516	46.769	13.097	1.00	52.82	C

Figure 5

ATOM	12348	CB	ILE	B	331	38.943	46.904	13.724	1.00	50.59	C
ATOM	12350	CG1	ILE	B	331	39.015	48.142	14.636	1.00	48.52	C
ATOM	12353	CD1	ILE	B	331	40.127	48.117	15.684	1.00	49.03	C
ATOM	12357	CG2	ILE	B	331	39.999	47.008	12.646	1.00	50.48	C
ATOM	12361	C	ILE	B	331	37.365	45.445	12.335	1.00	56.51	C
ATOM	12362	O	ILE	B	331	36.986	44.416	12.902	1.00	59.42	O
ATOM	12363	N	GLY	B	332	37.639	45.434	11.048	1.00	60.33	N
ATOM	12365	CA	GLY	B	332	37.641	44.152	10.362	1.00	63.25	C
ATOM	12368	C	GLY	B	332	38.836	43.301	10.774	1.00	63.78	C
ATOM	12369	O	GLY	B	332	39.479	43.550	11.789	1.00	57.35	O
ATOM	12370	N	ARG	B	333	39.122	42.278	9.979	1.00	68.79	N
ATOM	12372	CA	ARG	B	333	40.450	41.679	9.973	1.00	72.05	C
ATOM	12374	CB	ARG	B	333	40.386	40.178	9.658	1.00	75.29	C
ATOM	12377	CG	ARG	B	333	40.587	39.275	10.878	1.00	80.45	C
ATOM	12380	CD	ARG	B	333	41.294	37.953	10.579	1.00	84.54	C
ATOM	12383	NE	ARG	B	333	40.838	36.877	11.464	1.00	90.01	N
ATOM	12385	CZ	ARG	B	333	39.666	36.235	11.364	1.00	94.47	C
ATOM	12386	NH1	ARG	B	333	38.771	36.541	10.418	1.00	96.99	N
ATOM	12389	NH2	ARG	B	333	39.381	35.274	12.236	1.00	95.05	N
ATOM	12392	C	ARG	B	333	41.287	42.416	8.930	1.00	72.07	C
ATOM	12393	O	ARG	B	333	42.514	42.401	8.998	1.00	72.21	O
ATOM	12394	N	ASN	B	334	40.612	43.083	7.990	1.00	71.97	N
ATOM	12396	CA	ASN	B	334	41.276	43.711	6.847	1.00	72.04	C
ATOM	12398	CB	ASN	B	334	40.281	43.978	5.701	1.00	73.89	C
ATOM	12401	CG	ASN	B	334	39.644	42.699	5.168	1.00	76.22	C
ATOM	12402	OD1	ASN	B	334	38.437	42.652	4.911	1.00	80.28	O
ATOM	12403	ND2	ASN	B	334	40.448	41.650	5.017	1.00	75.92	N
ATOM	12406	C	ASN	B	334	42.011	44.994	7.222	1.00	67.53	C
ATOM	12407	O	ASN	B	334	43.239	45.000	7.253	1.00	68.52	O
ATOM	12408	N	ARG	B	335	41.279	46.070	7.515	1.00	60.88	N
ATOM	12410	CA	ARG	B	335	41.921	47.364	7.779	1.00	55.97	C
ATOM	12412	CB	ARG	B	335	40.933	48.523	7.668	1.00	54.56	C
ATOM	12415	CG	ARG	B	335	39.811	48.529	8.684	1.00	51.91	C
ATOM	12418	CD	ARG	B	335	38.986	49.796	8.621	1.00	54.15	C
ATOM	12421	NE	ARG	B	335	39.018	50.508	9.892	1.00	55.24	N
ATOM	12423	CZ	ARG	B	335	38.210	50.270	10.902	1.00	52.39	C
ATOM	12424	NH1	ARG	B	335	37.264	49.345	10.812	1.00	60.64	N
ATOM	12427	NH2	ARG	B	335	38.344	50.957	12.007	1.00	47.19	N
ATOM	12430	C	ARG	B	335	42.638	47.446	9.129	1.00	54.90	C
ATOM	12431	O	ARG	B	335	42.315	46.741	10.104	1.00	52.17	O
ATOM	12432	N	SER	B	336	43.617	48.334	9.175	1.00	50.64	N
ATOM	12434	CA	SER	B	336	44.401	48.503	10.378	1.00	49.64	C
ATOM	12436	CB	SER	B	336	45.808	49.010	10.015	1.00	51.18	C
ATOM	12439	OG	SER	B	336	45.860	50.413	10.001	1.00	52.19	O
ATOM	12441	C	SER	B	336	43.649	49.419	11.374	1.00	45.36	C
ATOM	12442	O	SER	B	336	42.806	50.242	10.969	1.00	44.10	O
ATOM	12443	N	PRO	B	337	43.884	49.236	12.672	1.00	39.02	N
ATOM	12444	CA	PRO	B	337	43.179	50.032	13.687	1.00	36.79	C
ATOM	12446	CB	PRO	B	337	43.636	49.419	15.004	1.00	39.79	C
ATOM	12449	CG	PRO	B	337	44.065	48.018	14.604	1.00	41.37	C
ATOM	12452	CD	PRO	B	337	44.760	48.232	13.286	1.00	38.31	C
ATOM	12455	C	PRO	B	337	43.581	51.467	13.611	1.00	32.90	C
ATOM	12456	O	PRO	B	337	44.591	51.757	12.978	1.00	31.41	O
ATOM	12457	N	CYS	B	338	42.765	52.333	14.198	1.00	31.34	N
ATOM	12459	CA	CYS	B	338	43.050	53.767	14.302	1.00	33.19	C
ATOM	12461	CB	CYS	B	338	42.604	54.519	13.061	1.00	33.40	C
ATOM	12464	SG	CYS	B	338	40.819	54.752	12.978	1.00	41.64	S
ATOM	12465	C	CYS	B	338	42.376	54.321	15.540	1.00	31.25	C
ATOM	12466	O	CYS	B	338	41.558	53.650	16.156	1.00	33.29	O
ATOM	12467	N	MET	B	339	42.748	55.531	15.923	1.00	33.28	N
ATOM	12469	CA	MET	B	339	42.302	56.097	17.192	1.00	33.94	C
ATOM	12471	CB	MET	B	339	42.988	57.445	17.419	1.00	34.41	C
ATOM	12474	CG	MET	B	339	44.480	57.338	17.716	1.00	35.79	C
ATOM	12477	SD	MET	B	339	44.792	56.018	18.892	1.00	36.24	S
ATOM	12478	CE	MET	B	339	44.226	56.678	20.362	1.00	39.22	C
ATOM	12482	C	MET	B	339	40.780	56.254	17.297	1.00	36.78	C
ATOM	12483	O	MET	B	339	40.210	56.151	18.381	1.00	36.23	O
ATOM	12484	N	GLN	B	340	40.120	56.498	16.170	1.00	41.14	N
ATOM	12486	CA	GLN	B	340	38.672	56.689	16.166	1.00	41.45	C
ATOM	12488	CB	GLN	B	340	38.145	57.037	14.765	1.00	44.15	C
ATOM	12491	CG	GLN	B	340	37.870	58.535	14.569	1.00	47.15	C
ATOM	12494	CD	GLN	B	340	37.539	58.884	13.123	1.00	49.99	C
ATOM	12495	OE1	GLN	B	340	36.647	58.275	12.525	1.00	51.07	O
ATOM	12496	NE2	GLN	B	340	38.253	59.867	12.562	1.00	46.81	N
ATOM	12499	C	GLN	B	340	37.947	55.467	16.698	1.00	41.44	C
ATOM	12500	O	GLN	B	340	36.864	55.612	17.256	1.00	44.50	O

381/514

Figure 5

ATOM	12501	N	ASP	B	341	38.536	54.281	16.538	1.00	36.37	N
ATOM	12503	CA	ASP	B	341	37.915	53.042	17.017	1.00	38.63	C
ATOM	12505	CB	ASP	B	341	38.650	51.816	16.474	1.00	40.50	C
ATOM	12508	CG	ASP	B	341	38.762	51.838	14.968	1.00	41.40	C
ATOM	12509	OD1	ASP	B	341	37.776	52.263	14.320	1.00	42.18	O
ATOM	12510	OD2	ASP	B	341	39.784	51.472	14.357	1.00	36.42	O
ATOM	12511	C	ASP	B	341	37.806	52.883	18.523	1.00	38.43	C
ATOM	12512	O	ASP	B	341	37.096	51.992	19.001	1.00	33.70	O
ATOM	12513	N	ARG	B	342	38.504	53.725	19.272	1.00	37.87	N
ATOM	12515	CA	ARG	B	342	38.649	53.489	20.692	1.00	39.28	C
ATOM	12517	CB	ARG	B	342	39.903	54.183	21.227	1.00	39.17	C
ATOM	12520	CG	ARG	B	342	40.089	53.995	22.719	1.00	37.38	C
ATOM	12523	CD	ARG	B	342	41.400	54.421	23.211	1.00	39.19	C
ATOM	12526	NE	ARG	B	342	41.615	55.844	23.008	1.00	39.45	N
ATOM	12528	CZ	ARG	B	342	42.608	56.528	23.544	1.00	38.41	C
ATOM	12529	NH1	ARG	B	342	43.496	55.922	24.326	1.00	39.77	N
ATOM	12532	NH2	ARG	B	342	42.715	57.829	23.298	1.00	37.59	N
ATOM	12535	C	ARG	B	342	37.393	53.886	21.469	1.00	41.11	C
ATOM	12536	O	ARG	B	342	37.026	53.219	22.437	1.00	41.10	O
ATOM	12537	N	SER	B	343	36.737	54.956	21.034	1.00	44.29	N
ATOM	12539	CA	SER	B	343	35.395	55.314	21.513	1.00	47.12	C
ATOM	12541	CB	SER	B	343	34.868	56.526	20.744	1.00	49.96	C
ATOM	12544	OG	SER	B	343	34.690	56.202	19.370	1.00	59.03	O
ATOM	12546	C	SER	B	343	34.382	54.163	21.406	1.00	43.28	C
ATOM	12547	O	SER	B	343	33.567	53.976	22.303	1.00	48.73	O
ATOM	12548	N	HIS	B	344	34.451	53.385	20.334	1.00	41.65	N
ATOM	12550	CA	HIS	B	344	33.577	52.205	20.163	1.00	45.79	C
ATOM	12552	CB	HIS	B	344	33.254	51.962	18.661	1.00	47.84	C
ATOM	12555	CG	HIS	B	344	32.834	53.206	17.940	1.00	50.49	C
ATOM	12556	ND1	HIS	B	344	32.015	54.155	18.518	1.00	55.44	N
ATOM	12558	CE1	HIS	B	344	31.852	55.165	17.682	1.00	53.22	C
ATOM	12560	NE2	HIS	B	344	32.536	54.907	16.583	1.00	52.02	N
ATOM	12562	CD2	HIS	B	344	33.166	53.690	16.722	1.00	52.06	C
ATOM	12564	C	HIS	B	344	34.143	50.924	20.797	1.00	44.26	C
ATOM	12565	O	HIS	B	344	33.556	49.852	20.656	1.00	43.11	O
ATOM	12566	N	MET	B	345	35.266	51.043	21.506	1.00	42.99	N
ATOM	12568	CA	MET	B	345	35.953	49.886	22.069	1.00	42.46	C
ATOM	12570	CB	MET	B	345	37.233	49.623	21.292	1.00	40.38	C
ATOM	12573	CG	MET	B	345	37.006	49.006	19.963	1.00	36.72	C
ATOM	12576	SD	MET	B	345	38.515	49.011	19.010	1.00	34.57	S
ATOM	12577	CE	MET	B	345	38.974	47.310	19.258	1.00	36.27	C
ATOM	12581	C	MET	B	345	36.273	50.092	23.555	1.00	42.23	C
ATOM	12582	O	MET	B	345	37.422	50.057	23.972	1.00	40.47	O
ATOM	12583	N	PRO	B	346	35.236	50.258	24.360	1.00	41.15	N
ATOM	12584	CA	PRO	B	346	35.404	50.659	25.756	1.00	38.60	C
ATOM	12586	CB	PRO	B	346	33.957	50.817	26.224	1.00	38.43	C
ATOM	12589	CG	PRO	B	346	33.198	49.891	25.376	1.00	37.38	C
ATOM	12592	CD	PRO	B	346	33.819	50.021	24.023	1.00	39.83	C
ATOM	12595	C	PRO	B	346	36.115	49.616	26.615	1.00	37.80	C
ATOM	12596	O	PRO	B	346	36.835	49.987	27.546	1.00	36.60	O
ATOM	12597	N	TYR	B	347	35.882	48.335	26.334	1.00	35.54	N
ATOM	12599	CA	TYR	B	347	36.524	47.277	27.082	1.00	36.67	C
ATOM	12601	CB	TYR	B	347	35.989	45.922	26.676	1.00	37.35	C
ATOM	12604	CG	TYR	B	347	36.485	44.838	27.577	1.00	38.56	C
ATOM	12605	CD1	TYR	B	347	35.931	44.659	28.834	1.00	43.04	C
ATOM	12607	CE1	TYR	B	347	36.389	43.660	29.697	1.00	44.67	C
ATOM	12609	CZ	TYR	B	347	37.410	42.831	29.294	1.00	45.05	C
ATOM	12610	OH	TYR	B	347	37.852	41.856	30.143	1.00	46.80	O
ATOM	12612	CE2	TYR	B	347	37.981	42.991	28.035	1.00	47.68	C
ATOM	12614	CD2	TYR	B	347	37.519	44.003	27.191	1.00	42.36	C
ATOM	12616	C	TYR	B	347	38.041	47.307	26.869	1.00	37.49	C
ATOM	12617	O	TYR	B	347	38.792	47.263	27.822	1.00	35.90	O
ATOM	12618	N	THR	B	348	38.471	47.382	25.616	1.00	36.38	N
ATOM	12620	CA	THR	B	348	39.880	47.531	25.295	1.00	39.58	C
ATOM	12622	CB	THR	B	348	40.093	47.545	23.760	1.00	38.43	C
ATOM	12624	OG1	THR	B	348	39.642	46.312	23.206	1.00	36.76	O
ATOM	12626	CG2	THR	B	348	41.572	47.557	23.413	1.00	39.15	C
ATOM	12630	C	THR	B	348	40.490	48.792	25.961	1.00	42.29	C
ATOM	12631	O	THR	B	348	41.536	48.697	26.600	1.00	49.54	O
ATOM	12632	N	ASP	B	349	39.845	49.950	25.807	1.00	39.16	N
ATOM	12634	CA	ASP	B	349	40.223	51.179	26.504	1.00	36.76	C
ATOM	12636	CB	ASP	B	349	39.126	52.248	26.308	1.00	41.53	C
ATOM	12639	CG	ASP	B	349	39.656	53.695	26.290	1.00	41.38	C
ATOM	12640	OD1	ASP	B	349	40.833	53.926	26.612	1.00	45.66	O
ATOM	12641	OD2	ASP	B	349	38.937	54.672	25.978	1.00	40.43	O
ATOM	12642	C	ASP	B	349	40.379	50.875	27.989	1.00	35.92	C

382/514

Figure 5

ATOM	12643	O	ASP	B	349	41.304	51.336	28.635	1.00	37.77	O
ATOM	12644	N	ALA	B	350	39.475	50.083	28.538	1.00	34.79	N
ATOM	12646	CA	ALA	B	350	39.554	49.746	29.948	1.00	34.27	C
ATOM	12648	CB	ALA	B	350	38.289	49.090	30.377	1.00	36.78	C
ATOM	12652	C	ALA	B	350	40.747	48.837	30.243	1.00	35.32	C
ATOM	12653	O	ALA	B	350	41.423	49.012	31.257	1.00	37.32	O
ATOM	12654	N	VAL	B	351	41.025	47.882	29.358	1.00	29.37	N
ATOM	12656	CA	VAL	B	351	42.189	47.012	29.532	1.00	30.32	C
ATOM	12658	CB	VAL	B	351	42.207	45.892	28.483	1.00	28.80	C
ATOM	12660	CG1	VAL	B	351	43.512	45.169	28.487	1.00	30.95	C
ATOM	12664	CG2	VAL	B	351	41.084	44.898	28.764	1.00	30.97	C
ATOM	12668	C	VAL	B	351	43.517	47.807	29.508	1.00	32.35	C
ATOM	12669	O	VAL	B	351	44.425	47.532	30.291	1.00	30.99	O
ATOM	12670	N	VAL	B	352	43.621	48.788	28.617	1.00	33.65	N
ATOM	12672	CA	VAL	B	352	44.849	49.549	28.470	1.00	33.11	C
ATOM	12674	CB	VAL	B	352	44.848	50.396	27.203	1.00	33.71	C
ATOM	12676	CG1	VAL	B	352	46.065	51.300	27.185	1.00	36.03	C
ATOM	12680	CG2	VAL	B	352	44.867	49.498	25.955	1.00	32.35	C
ATOM	12684	C	VAL	B	352	45.042	50.415	29.700	1.00	33.70	C
ATOM	12685	O	VAL	B	352	46.122	50.452	30.272	1.00	32.66	O
ATOM	12686	N	HIS	B	353	43.968	51.071	30.122	1.00	35.06	N
ATOM	12688	CA	HIS	B	353	43.971	51.891	31.326	1.00	32.62	C
ATOM	12690	CB	HIS	B	353	42.596	52.530	31.534	1.00	30.92	C
ATOM	12693	CG	HIS	B	353	42.393	53.779	30.743	1.00	30.34	C
ATOM	12694	ND1	HIS	B	353	42.588	55.035	31.285	1.00	26.60	N
ATOM	12696	CE1	HIS	B	353	42.381	55.943	30.349	1.00	27.82	C
ATOM	12698	NE2	HIS	B	353	42.060	55.322	29.225	1.00	28.55	N
ATOM	12700	CD2	HIS	B	353	42.067	53.968	29.440	1.00	21.13	C
ATOM	12702	C	HIS	B	353	44.334	51.071	32.550	1.00	33.48	C
ATOM	12703	O	HIS	B	353	45.126	51.498	33.382	1.00	35.13	O
ATOM	12704	N	GLU	B	354	43.764	49.884	32.655	1.00	33.62	N
ATOM	12706	CA	GLU	B	354	44.067	49.015	33.787	1.00	36.17	C
ATOM	12708	CB	GLU	B	354	43.075	47.848	33.863	1.00	34.98	C
ATOM	12711	CG	GLU	B	354	43.353	46.872	35.004	1.00	37.28	C
ATOM	12714	CD	GLU	B	354	43.110	47.500	36.351	1.00	38.61	C
ATOM	12715	OE1	GLU	B	354	42.766	48.683	36.352	1.00	34.32	O
ATOM	12716	OE2	GLU	B	354	43.231	46.829	37.392	1.00	38.85	O
ATOM	12717	C	GLU	B	354	45.507	48.463	33.766	1.00	36.74	C
ATOM	12718	O	GLU	B	354	46.090	48.263	34.837	1.00	39.44	O
ATOM	12719	N	VAL	B	355	46.069	48.201	32.577	1.00	31.98	N
ATOM	12721	CA	VAL	B	355	47.454	47.792	32.499	1.00	29.72	C
ATOM	12723	CB	VAL	B	355	47.920	47.533	31.044	1.00	32.39	C
ATOM	12725	CG1	VAL	B	355	49.456	47.522	30.945	1.00	34.09	C
ATOM	12729	CG2	VAL	B	355	47.363	46.220	30.515	1.00	34.62	C
ATOM	12733	C	VAL	B	355	48.263	48.919	33.148	1.00	29.85	C
ATOM	12734	O	VAL	B	355	48.976	48.699	34.089	1.00	28.08	O
ATOM	12735	N	GLN	B	356	48.114	50.140	32.666	1.00	29.40	N
ATOM	12737	CA	GLN	B	356	48.912	51.239	33.169	1.00	30.70	C
ATOM	12739	CB	GLN	B	356	48.520	52.551	32.477	1.00	29.30	C
ATOM	12742	CG	GLN	B	356	48.798	52.591	31.002	1.00	29.08	C
ATOM	12745	CD	GLN	B	356	49.120	53.999	30.517	1.00	32.59	C
ATOM	12746	OE1	GLN	B	356	48.228	54.696	30.047	1.00	34.56	O
ATOM	12747	NE2	GLN	B	356	50.392	54.421	30.629	1.00	25.88	N
ATOM	12750	C	GLN	B	356	48.731	51.393	34.676	1.00	33.48	C
ATOM	12751	O	GLN	B	356	49.678	51.669	35.397	1.00	37.63	O
ATOM	12752	N	ARG	B	357	47.504	51.225	35.147	1.00	37.50	N
ATOM	12754	CA	ARG	B	357	47.167	51.532	36.532	1.00	35.53	C
ATOM	12756	CB	ARG	B	357	45.649	51.458	36.764	1.00	35.67	C
ATOM	12759	CG	ARG	B	357	45.213	52.062	38.123	1.00	35.77	C
ATOM	12762	CD	ARG	B	357	44.046	51.402	38.791	1.00	30.12	C
ATOM	12765	NE	ARG	B	357	44.164	49.949	38.842	1.00	34.47	N
ATOM	12767	CZ	ARG	B	357	44.564	49.241	39.885	1.00	34.03	C
ATOM	12768	NH1	ARG	B	357	44.615	47.928	39.792	1.00	34.70	N
ATOM	12771	NH2	ARG	B	357	44.935	49.826	41.010	1.00	38.45	N
ATOM	12774	C	ARG	B	357	47.834	50.559	37.458	1.00	32.30	C
ATOM	12775	O	ARG	B	357	48.495	50.952	38.413	1.00	33.13	O
ATOM	12776	N	TYR	B	358	47.626	49.287	37.161	1.00	32.82	N
ATOM	12778	CA	TYR	B	358	48.107	48.194	37.983	1.00	35.40	C
ATOM	12780	CB	TYR	B	358	47.572	46.890	37.410	1.00	37.07	C
ATOM	12783	CG	TYR	B	358	48.150	45.604	37.971	1.00	42.58	C
ATOM	12784	CD1	TYR	B	358	49.348	45.092	37.495	1.00	42.00	C
ATOM	12786	CE1	TYR	B	358	49.856	43.904	37.984	1.00	42.25	C
ATOM	12788	CZ	TYR	B	358	49.163	43.201	38.937	1.00	40.87	C
ATOM	12789	OH	TYR	B	358	49.683	42.032	39.420	1.00	42.65	O
ATOM	12791	CE2	TYR	B	358	47.973	43.668	39.416	1.00	41.08	C
ATOM	12793	CD2	TYR	B	358	47.460	44.862	38.931	1.00	42.82	C

383/514

Figure 5

ATOM	12795	C	TYR	B	358	49.627	48.188	38.061	1.00	33.63	C
ATOM	12796	O	TYR	B	358	50.157	48.057	39.152	1.00	38.26	O
ATOM	12797	N	ILE	B	359	50.320	48.355	36.930	1.00	29.32	N
ATOM	12799	CA	ILE	B	359	51.789	48.235	36.902	1.00	28.01	C
ATOM	12801	CB	ILE	B	359	52.380	48.071	35.475	1.00	26.93	C
ATOM	12803	CG1	ILE	B	359	52.198	49.336	34.648	1.00	29.92	C
ATOM	12806	CD1	ILE	B	359	52.649	49.135	33.214	1.00	32.66	C
ATOM	12810	CG2	ILE	B	359	51.829	46.820	34.774	1.00	30.95	C
ATOM	12814	C	ILE	B	359	52.539	49.353	37.597	1.00	28.17	C
ATOM	12815	O	ILE	B	359	53.642	49.146	38.086	1.00	25.82	O
ATOM	12816	N	ASP	B	360	51.965	50.539	37.620	1.00	30.58	N
ATOM	12818	CA	ASP	B	360	52.526	51.632	38.405	1.00	35.05	C
ATOM	12820	CB	ASP	B	360	52.194	51.434	39.879	1.00	35.91	C
ATOM	12823	CG	ASP	B	360	52.812	52.501	40.758	1.00	43.84	C
ATOM	12824	OD1	ASP	B	360	53.281	52.149	41.883	1.00	48.45	O
ATOM	12825	OD2	ASP	B	360	52.865	53.710	40.396	1.00	49.25	O
ATOM	12826	C	ASP	B	360	54.037	51.765	38.195	1.00	33.22	C
ATOM	12827	O	ASP	B	360	54.840	51.473	39.072	1.00	38.25	O
ATOM	12828	N	LEU	B	361	54.387	52.265	37.025	1.00	35.85	N
ATOM	12830	CA	LEU	B	361	55.719	52.146	36.469	1.00	36.03	C
ATOM	12832	CB	LEU	B	361	55.642	52.264	34.941	1.00	35.29	C
ATOM	12835	CG	LEU	B	361	56.292	51.119	34.176	1.00	34.52	C
ATOM	12837	CD1	LEU	B	361	55.660	49.783	34.490	1.00	26.62	C
ATOM	12841	CD2	LEU	B	361	56.225	51.419	32.712	1.00	37.25	C
ATOM	12845	C	LEU	B	361	56.680	53.180	37.036	1.00	38.85	C
ATOM	12846	O	LEU	B	361	57.849	52.874	37.255	1.00	39.49	O
ATOM	12847	N	LEU	B	362	56.194	54.396	37.272	1.00	37.42	N
ATOM	12849	CA	LEU	B	362	56.976	55.409	37.949	1.00	33.09	C
ATOM	12851	CB	LEU	B	362	57.098	56.609	37.041	1.00	34.84	C
ATOM	12854	CG	LEU	B	362	57.903	56.297	35.766	1.00	36.11	C
ATOM	12856	CD1	LEU	B	362	57.113	56.639	34.510	1.00	39.88	C
ATOM	12860	CD2	LEU	B	362	59.174	57.062	35.739	1.00	32.15	C
ATOM	12864	C	LEU	B	362	56.280	55.769	39.254	1.00	35.40	C
ATOM	12865	O	LEU	B	362	55.643	56.823	39.348	1.00	32.69	O
ATOM	12866	N	PRO	B	363	56.391	54.887	40.255	1.00	37.91	N
ATOM	12867	CA	PRO	B	363	55.667	55.006	41.542	1.00	38.19	C
ATOM	12869	CB	PRO	B	363	56.287	53.895	42.416	1.00	36.07	C
ATOM	12872	CG	PRO	B	363	56.968	52.974	41.527	1.00	38.54	C
ATOM	12875	CD	PRO	B	363	57.219	53.669	40.222	1.00	40.09	C
ATOM	12878	C	PRO	B	363	55.798	56.340	42.265	1.00	35.51	C
ATOM	12879	O	PRO	B	363	54.926	56.694	43.053	1.00	40.03	O
ATOM	12880	N	THR	B	364	56.946	56.969	42.096	1.00	36.51	N
ATOM	12882	CA	THR	B	364	57.148	58.376	42.356	1.00	39.26	C
ATOM	12884	CB	THR	B	364	58.307	58.623	43.353	1.00	39.57	C
ATOM	12886	OG1	THR	B	364	59.567	58.166	42.832	1.00	42.80	O
ATOM	12888	CG2	THR	B	364	58.136	57.772	44.592	1.00	38.97	C
ATOM	12892	C	THR	B	364	57.456	58.914	40.972	1.00	42.69	C
ATOM	12893	O	THR	B	364	58.484	58.567	40.330	1.00	52.72	O
ATOM	12894	N	SER	B	365	56.501	59.635	40.426	1.00	41.32	N
ATOM	12896	CA	SER	B	365	56.735	60.287	39.172	1.00	41.54	C
ATOM	12898	CB	SER	B	365	55.699	61.400	38.970	1.00	41.61	C
ATOM	12901	OG	SER	B	365	56.260	62.563	38.409	1.00	39.86	O
ATOM	12903	C	SER	B	365	58.125	60.853	39.368	1.00	41.28	C
ATOM	12904	O	SER	B	365	58.606	60.902	40.513	1.00	53.09	O
ATOM	12905	N	LEU	B	366	58.763	61.273	38.293	1.00	32.84	N
ATOM	12907	CA	LEU	B	366	59.961	62.057	38.397	1.00	34.01	C
ATOM	12909	CB	LEU	B	366	60.301	62.676	37.048	1.00	35.63	C
ATOM	12912	CG	LEU	B	366	61.257	61.914	36.147	1.00	37.36	C
ATOM	12914	CD1	LEU	B	366	60.768	60.474	35.910	1.00	36.43	C
ATOM	12918	CD2	LEU	B	366	61.401	62.698	34.824	1.00	37.52	C
ATOM	12922	C	LEU	B	366	59.868	63.180	39.440	1.00	34.74	C
ATOM	12923	O	LEU	B	366	58.846	63.820	39.552	1.00	34.87	O
ATOM	12924	N	PRO	B	367	60.966	63.473	40.134	1.00	39.60	N
ATOM	12925	CA	PRO	B	367	60.959	64.417	41.258	1.00	41.51	C
ATOM	12927	CB	PRO	B	367	62.387	64.317	41.811	1.00	43.82	C
ATOM	12930	CG	PRO	B	367	62.959	63.110	41.196	1.00	44.53	C
ATOM	12933	CD	PRO	B	367	62.323	62.962	39.868	1.00	42.52	C
ATOM	12936	C	PRO	B	367	60.701	65.861	40.875	1.00	41.13	C
ATOM	12937	O	PRO	B	367	61.340	66.327	39.938	1.00	36.29	O
ATOM	12938	N	HIS	B	368	59.810	66.535	41.622	1.00	42.12	N
ATOM	12940	CA	HIS	B	368	59.483	67.957	41.458	1.00	40.17	C
ATOM	12942	CB	HIS	B	368	57.977	68.164	41.685	1.00	41.90	C
ATOM	12945	CG	HIS	B	368	57.120	67.647	40.576	1.00	40.31	C
ATOM	12946	ND1	HIS	B	368	56.560	68.475	39.632	1.00	40.58	N
ATOM	12948	CE1	HIS	B	368	55.880	67.746	38.766	1.00	41.94	C
ATOM	12950	NE2	HIS	B	368	55.970	66.476	39.119	1.00	34.31	N

384/514

Figure 5

ATOM	12952	CD2	HIS	B	368	56.733	66.389	40.254	1.00	38.09
ATOM	12954	C	HIS	B	368	60.271	68.828	42.454	1.00	42.29
ATOM	12955	O	HIS	B	368	61.063	68.333	43.243	1.00	42.66
ATOM	12956	N	ALA	B	369	60.048	70.131	42.422	1.00	44.85
ATOM	12958	CA	ALA	B	369	60.652	71.036	43.401	1.00	47.14
ATOM	12960	CB	ALA	B	369	62.091	71.340	43.040	1.00	46.47
ATOM	12964	C	ALA	B	369	59.843	72.322	43.467	1.00	49.35
ATOM	12965	O	ALA	B	369	59.382	72.830	42.431	1.00	51.09
ATOM	12966	N	VAL	B	370	59.650	72.840	44.680	1.00	51.37
ATOM	12968	CA	VAL	B	370	58.808	74.026	44.850	1.00	52.84
ATOM	12970	CB	VAL	B	370	58.284	74.254	46.303	1.00	51.85
ATOM	12972	CG1	VAL	B	370	57.466	73.074	46.746	1.00	49.12
ATOM	12976	CG2	VAL	B	370	59.408	74.527	47.287	1.00	57.14
ATOM	12980	C	VAL	B	370	59.561	75.225	44.322	1.00	52.55
ATOM	12981	O	VAL	B	370	60.744	75.392	44.543	1.00	50.33
ATOM	12982	N	THR	B	371	58.845	76.059	43.610	1.00	56.00
ATOM	12984	CA	THR	B	371	59.465	77.052	42.774	1.00	59.50
ATOM	12986	CB	THR	B	371	58.608	77.171	41.511	1.00	58.20
ATOM	12988	OG1	THR	B	371	59.346	77.815	40.492	1.00	58.74
ATOM	12990	CG2	THR	B	371	57.419	78.078	41.723	1.00	59.40
ATOM	12994	C	THR	B	371	59.617	78.384	43.535	1.00	62.64
ATOM	12995	O	THR	B	371	60.103	79.374	42.993	1.00	63.95
ATOM	12996	N	CYS	B	372	59.203	78.380	44.801	1.00	65.51
ATOM	12998	CA	CYS	B	372	59.212	79.564	45.667	1.00	67.07
ATOM	13000	CB	CYS	B	372	58.220	80.618	45.160	1.00	65.47
ATOM	13003	SG	CYS	B	372	56.509	80.032	44.994	1.00	66.09
ATOM	13004	C	CYS	B	372	58.838	79.146	47.099	1.00	70.15
ATOM	13005	O	CYS	B	372	58.271	78.058	47.310	1.00	69.61
ATOM	13006	N	ASP	B	373	59.157	79.994	48.082	1.00	72.21
ATOM	13008	CA	ASP	B	373	58.731	79.738	49.464	1.00	72.13
ATOM	13010	CB	ASP	B	373	59.205	80.840	50.406	1.00	71.90
ATOM	13013	CG	ASP	B	373	60.700	80.762	50.707	1.00	73.11
ATOM	13014	OD1	ASP	B	373	61.271	81.774	51.169	1.00	75.11
ATOM	13015	OD2	ASP	B	373	61.391	79.744	50.521	1.00	67.37
ATOM	13016	C	ASP	B	373	57.214	79.661	49.498	1.00	71.53
ATOM	13017	O	ASP	B	373	56.556	80.666	49.262	1.00	72.88
ATOM	13018	N	ILE	B	374	56.672	78.466	49.738	1.00	70.16
ATOM	13020	CA	ILE	B	374	55.228	78.248	49.814	1.00	69.59
ATOM	13022	CB	ILE	B	374	54.770	77.176	48.746	1.00	70.73
ATOM	13024	CG1	ILE	B	374	53.284	77.314	48.400	1.00	73.05
ATOM	13027	CD1	ILE	B	374	52.904	78.606	47.696	1.00	75.68
ATOM	13031	CG2	ILE	B	374	54.999	75.729	49.225	1.00	68.83
ATOM	13035	C	ILE	B	374	54.836	77.805	51.218	1.00	70.76
ATOM	13036	O	ILE	B	374	55.655	77.246	51.942	1.00	66.12
ATOM	13037	N	LYS	B	375	53.585	78.075	51.596	1.00	73.73
ATOM	13039	CA	LYS	B	375	52.951	77.434	52.756	1.00	75.87
ATOM	13041	CB	LYS	B	375	52.240	78.461	53.659	1.00	80.37
ATOM	13044	CG	LYS	B	375	51.490	77.862	54.885	1.00	83.93
ATOM	13047	CD	LYS	B	375	50.855	78.949	55.790	1.00	85.88
ATOM	13050	CE	LYS	B	375	51.900	79.708	56.633	1.00	86.80
ATOM	13053	NZ	LYS	B	375	51.751	79.451	58.099	1.00	87.29
ATOM	13057	C	LYS	B	375	51.946	76.438	52.208	1.00	71.26
ATOM	13058	O	LYS	B	375	51.171	76.768	51.317	1.00	67.81
ATOM	13059	N	PHE	B	376	51.947	75.229	52.745	1.00	68.39
ATOM	13061	CA	PHE	B	376	51.138	74.165	52.175	1.00	67.00
ATOM	13063	CB	PHE	B	376	51.996	73.343	51.194	1.00	66.49
ATOM	13066	CG	PHE	B	376	51.278	72.168	50.579	1.00	62.44
ATOM	13067	CD1	PHE	B	376	50.359	72.358	49.566	1.00	61.84
ATOM	13069	CE1	PHE	B	376	49.690	71.276	49.007	1.00	62.27
ATOM	13071	CZ	PHE	B	376	49.946	69.991	49.464	1.00	62.16
ATOM	13073	CE2	PHE	B	376	50.858	69.791	50.476	1.00	59.48
ATOM	13075	CD2	PHE	B	376	51.521	70.873	51.026	1.00	60.76
ATOM	13077	C	PHE	B	376	50.601	73.300	53.296	1.00	67.08
ATOM	13078	O	PHE	B	376	51.362	72.597	53.947	1.00	67.83
ATOM	13079	N	ARG	B	377	49.288	73.358	53.512	1.00	70.38
ATOM	13081	CA	ARG	B	377	48.629	72.691	54.657	1.00	73.47
ATOM	13083	CB	ARG	B	377	48.666	71.144	54.518	1.00	71.51
ATOM	13086	CG	ARG	B	377	48.481	70.590	53.081	1.00	68.11
ATOM	13089	CD	ARG	B	377	47.060	70.124	52.708	1.00	60.89
ATOM	13092	NE	ARG	B	377	46.855	68.722	53.055	1.00	57.14
ATOM	13094	CZ	ARG	B	377	46.158	67.838	52.349	1.00	56.98
ATOM	13095	NH1	ARG	B	377	45.563	68.184	51.211	1.00	58.96
ATOM	13098	NH2	ARG	B	377	46.046	66.585	52.792	1.00	55.70
ATOM	13101	C	ARG	B	377	49.211	73.152	56.026	1.00	76.56
ATOM	13102	O	ARG	B	377	49.385	72.340	56.952	1.00	75.25
ATOM	13103	N	ASN	B	378	49.465	74.464	56.141	1.00	79.17

[illegible]

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	

385/514

Figure 5

ATOM	13105	CA	ASN	B	378	50.223	75.041	57.256	1.00	82.59	C
ATOM	13107	CB	ASN	B	378	49.350	75.213	58.520	1.00	84.25	C
ATOM	13110	CG	ASN	B	378	50.145	75.766	59.734	1.00	87.52	C
ATOM	13111	OD1	ASN	B	378	50.061	75.223	60.842	1.00	87.49	O
ATOM	13112	ND2	ASN	B	378	50.924	76.830	59.514	1.00	86.98	N
ATOM	13115	C	ASN	B	378	51.450	74.187	57.564	1.00	82.51	C
ATOM	13116	O	ASN	B	378	51.598	73.673	58.679	1.00	85.09	O
ATOM	13117	N	TYR	B	379	52.322	74.012	56.575	1.00	81.17	N
ATOM	13119	CA	TYR	B	379	53.507	73.196	56.803	1.00	80.34	C
ATOM	13121	CB	TYR	B	379	53.298	71.794	56.249	1.00	78.98	C
ATOM	13124	CG	TYR	B	379	52.728	70.782	57.228	1.00	78.35	C
ATOM	13125	CD1	TYR	B	379	51.724	69.909	56.832	1.00	79.04	C
ATOM	13127	CE1	TYR	B	379	51.205	68.958	57.697	1.00	78.96	C
ATOM	13129	CZ	TYR	B	379	51.696	68.867	58.974	1.00	79.13	C
ATOM	13130	OH	TYR	B	379	51.176	67.917	59.816	1.00	79.38	O
ATOM	13132	CE2	TYR	B	379	52.694	69.724	59.401	1.00	76.73	C
ATOM	13134	CD2	TYR	B	379	53.209	70.671	58.527	1.00	76.81	C
ATOM	13136	C	TYR	B	379	54.829	73.763	56.311	1.00	81.87	C
ATOM	13137	O	TYR	B	379	55.854	73.102	56.497	1.00	87.12	O
ATOM	13138	N	LEU	B	380	54.830	74.966	55.725	1.00	80.43	N
ATOM	13140	CA	LEU	B	380	56.067	75.764	55.579	1.00	80.24	C
ATOM	13142	CB	LEU	B	380	56.563	76.274	56.982	1.00	80.96	C
ATOM	13145	CG	LEU	B	380	57.091	75.419	58.190	1.00	82.33	C
ATOM	13147	CD1	LEU	B	380	58.126	76.214	59.019	1.00	82.34	C
ATOM	13151	CD2	LEU	B	380	56.016	74.873	59.172	1.00	81.19	C
ATOM	13155	C	LEU	B	380	57.196	75.062	54.757	1.00	77.97	C
ATOM	13156	O	LEU	B	380	58.114	74.473	55.326	1.00	78.30	O
ATOM	13157	N	ILE	B	381	57.104	75.112	53.421	1.00	75.08	N
ATOM	13159	CA	ILE	B	381	58.097	74.486	52.526	1.00	70.31	C
ATOM	13161	CB	ILE	B	381	57.432	73.613	51.425	1.00	69.27	C
ATOM	13163	CG1	ILE	B	381	56.317	72.726	51.980	1.00	67.61	C
ATOM	13166	CD1	ILE	B	381	55.531	72.023	50.898	1.00	66.53	C
ATOM	13170	CG2	ILE	B	381	58.484	72.728	50.764	1.00	69.42	C
ATOM	13174	C	ILE	B	381	58.979	75.519	51.824	1.00	69.06	C
ATOM	13175	O	ILE	B	381	58.492	76.311	51.011	1.00	68.65	O
ATOM	13176	N	PRO	B	382	60.282	75.482	52.089	1.00	67.29	N
ATOM	13177	CA	PRO	B	382	61.205	76.464	51.495	1.00	65.55	C
ATOM	13179	CB	PRO	B	382	62.481	76.310	52.326	1.00	64.94	C
ATOM	13182	CG	PRO	B	382	62.397	74.943	52.991	1.00	66.86	C
ATOM	13185	CD	PRO	B	382	60.966	74.507	52.961	1.00	66.58	C
ATOM	13188	C	PRO	B	382	61.486	76.235	50.001	1.00	64.92	C
ATOM	13189	O	PRO	B	382	61.467	75.093	49.553	1.00	63.06	O
ATOM	13190	N	LYS	B	383	61.711	77.329	49.262	1.00	64.87	N
ATOM	13192	CA	LYS	B	383	62.067	77.326	47.832	1.00	62.79	C
ATOM	13194	CB	LYS	B	383	62.417	78.751	47.374	1.00	63.27	C
ATOM	13197	CG	LYS	B	383	63.014	78.818	45.975	1.00	66.75	C
ATOM	13200	CD	LYS	B	383	63.327	80.234	45.509	1.00	68.99	C
ATOM	13203	CE	LYS	B	383	63.961	80.200	44.103	1.00	70.03	C
ATOM	13206	NZ	LYS	B	383	64.624	81.482	43.721	1.00	70.35	N
ATOM	13210	C	LYS	B	383	63.248	76.401	47.495	1.00	60.10	C
ATOM	13211	O	LYS	B	383	64.262	76.396	48.188	1.00	61.13	O
ATOM	13212	N	GLY	B	384	63.103	75.647	46.408	1.00	55.83	N
ATOM	13214	CA	GLY	B	384	64.074	74.651	45.994	1.00	53.11	C
ATOM	13217	C	GLY	B	384	63.908	73.265	46.605	1.00	51.01	C
ATOM	13218	O	GLY	B	384	64.557	72.330	46.150	1.00	53.13	O
ATOM	13219	N	THR	B	385	63.055	73.114	47.616	1.00	49.02	N
ATOM	13221	CA	THR	B	385	62.890	71.826	48.298	1.00	47.14	C
ATOM	13223	CB	THR	B	385	61.843	71.913	49.449	1.00	45.25	C
ATOM	13225	OG1	THR	B	385	62.271	72.824	50.466	1.00	41.05	O
ATOM	13227	CG2	THR	B	385	61.753	70.580	50.183	1.00	45.28	C
ATOM	13231	C	THR	B	385	62.437	70.752	47.314	1.00	46.94	C
ATOM	13232	O	THR	B	385	61.555	70.984	46.511	1.00	50.79	O
ATOM	13233	N	THR	B	386	63.025	69.568	47.390	1.00	45.95	N
ATOM	13235	CA	THR	B	386	62.625	68.479	46.510	1.00	42.71	C
ATOM	13237	CB	THR	B	386	63.725	67.420	46.442	1.00	42.35	C
ATOM	13239	OG1	THR	B	386	64.892	67.982	45.819	1.00	39.32	O
ATOM	13241	CG2	THR	B	386	63.326	66.261	45.519	1.00	42.59	C
ATOM	13245	C	THR	B	386	61.313	67.867	46.967	1.00	41.20	C
ATOM	13246	O	THR	B	386	61.087	67.710	48.157	1.00	44.93	O
ATOM	13247	N	ILE	B	387	60.456	67.522	46.005	1.00	41.69	N
ATOM	13249	CA	ILE	B	387	59.113	66.980	46.262	1.00	38.88	C
ATOM	13251	CB	ILE	B	387	58.035	67.938	45.722	1.00	41.00	C
ATOM	13253	CG1	ILE	B	387	58.302	69.393	46.152	1.00	45.89	C
ATOM	13256	CD1	ILE	B	387	58.039	69.670	47.611	1.00	47.77	C
ATOM	13260	CG2	ILE	B	387	56.652	67.482	46.150	1.00	40.76	C
ATOM	13264	C	ILE	B	387	58.950	65.654	45.544	1.00	37.78	C

386/514

Figure 5

ATOM	13265	O	ILE	B	387	59.176	65.579	44.342	1.00	38.90	O
ATOM	13266	N	LEU	B	388	58.562	64.617	46.260	1.00	33.81	N
ATOM	13268	CA	LEU	B	388	58.258	63.364	45.630	1.00	40.13	C
ATOM	13270	CB	LEU	B	388	58.960	62.220	46.368	1.00	45.81	C
ATOM	13273	CG	LEU	B	388	60.474	62.064	46.146	1.00	46.08	C
ATOM	13275	CD1	LEU	B	388	60.900	60.676	46.550	1.00	48.04	C
ATOM	13279	CD2	LEU	B	388	60.886	62.327	44.710	1.00	43.46	C
ATOM	13283	C	LEU	B	388	56.755	63.147	45.637	1.00	42.79	C
ATOM	13284	O	LEU	B	388	56.147	63.163	46.692	1.00	44.30	O
ATOM	13285	N	ILE	B	389	56.168	62.945	44.454	1.00	44.22	N
ATOM	13287	CA	ILE	B	389	54.737	62.716	44.299	1.00	37.54	C
ATOM	13289	CB	ILE	B	389	54.279	63.274	42.954	1.00	40.94	C
ATOM	13291	CG1	ILE	B	389	54.633	64.756	42.847	1.00	44.25	C
ATOM	13294	CD1	ILE	B	389	53.904	65.634	43.848	1.00	46.17	C
ATOM	13298	CG2	ILE	B	389	52.775	63.078	42.753	1.00	39.26	C
ATOM	13302	C	ILE	B	389	54.511	61.234	44.298	1.00	37.32	C
ATOM	13303	O	ILE	B	389	55.123	60.522	43.522	1.00	37.03	O
ATOM	13304	N	SER	B	390	53.615	60.747	45.137	1.00	33.93	N
ATOM	13306	CA	SER	B	390	53.409	59.320	45.200	1.00	33.65	C
ATOM	13308	CB	SER	B	390	53.088	58.873	46.622	1.00	31.05	C
ATOM	13311	OG	SER	B	390	52.819	57.477	46.659	1.00	30.51	O
ATOM	13313	C	SER	B	390	52.308	58.956	44.226	1.00	36.51	C
ATOM	13314	O	SER	B	390	51.134	59.058	44.546	1.00	40.69	O
ATOM	13315	N	LEU	B	391	52.674	58.559	43.010	1.00	40.31	N
ATOM	13317	CA	LEU	B	391	51.656	58.113	42.049	1.00	37.77	C
ATOM	13319	CB	LEU	B	391	52.223	57.997	40.642	1.00	35.31	C
ATOM	13322	CG	LEU	B	391	52.711	59.315	40.028	1.00	36.43	C
ATOM	13324	CD1	LEU	B	391	53.014	59.123	38.536	1.00	37.52	C
ATOM	13328	CD2	LEU	B	391	51.721	60.449	40.207	1.00	35.84	C
ATOM	13332	C	LEU	B	391	50.970	56.820	42.470	1.00	37.25	C
ATOM	13333	O	LEU	B	391	49.811	56.633	42.174	1.00	38.85	O
ATOM	13334	N	THR	B	392	51.673	55.945	43.182	1.00	42.35	N
ATOM	13336	CA	THR	B	392	51.087	54.683	43.673	1.00	39.20	C
ATOM	13338	CB	THR	B	392	52.079	53.903	44.544	1.00	34.66	C
ATOM	13340	OG1	THR	B	392	53.338	53.826	43.885	1.00	39.97	O
ATOM	13342	CG2	THR	B	392	51.646	52.452	44.666	1.00	36.18	C
ATOM	13346	C	THR	B	392	49.884	54.930	44.543	1.00	39.72	C
ATOM	13347	O	THR	B	392	48.916	54.179	44.515	1.00	33.91	O
ATOM	13348	N	SER	B	393	49.984	55.965	45.367	1.00	39.73	N
ATOM	13350	CA	SER	B	393	48.954	56.224	46.351	1.00	37.67	C
ATOM	13352	CB	SER	B	393	49.420	57.269	47.335	1.00	33.00	C
ATOM	13355	OG	SER	B	393	49.668	58.470	46.664	1.00	32.02	O
ATOM	13357	C	SER	B	393	47.674	56.655	45.669	1.00	38.86	C
ATOM	13358	O	SER	B	393	46.572	56.434	46.206	1.00	44.74	O
ATOM	13359	N	VAL	B	394	47.818	57.238	44.482	1.00	36.30	N
ATOM	13361	CA	VAL	B	394	46.672	57.588	43.658	1.00	36.58	C
ATOM	13363	CB	VAL	B	394	46.960	58.830	42.845	1.00	36.66	C
ATOM	13365	CG1	VAL	B	394	45.720	59.240	42.060	1.00	35.82	C
ATOM	13369	CG2	VAL	B	394	47.435	59.948	43.780	1.00	37.92	C
ATOM	13373	C	VAL	B	394	46.234	56.449	42.737	1.00	35.99	C
ATOM	13374	O	VAL	B	394	45.055	56.136	42.650	1.00	38.91	O
ATOM	13375	N	LEU	B	395	47.181	55.806	42.074	1.00	36.20	N
ATOM	13377	CA	LEU	B	395	46.848	54.746	41.122	1.00	34.88	C
ATOM	13379	CB	LEU	B	395	48.083	54.313	40.328	1.00	37.44	C
ATOM	13382	CG	LEU	B	395	48.308	54.720	38.864	1.00	39.79	C
ATOM	13384	CD1	LEU	B	395	47.895	56.106	38.574	1.00	39.54	C
ATOM	13388	CD2	LEU	B	395	49.795	54.556	38.512	1.00	40.13	C
ATOM	13392	C	LEU	B	395	46.293	53.536	41.830	1.00	32.19	C
ATOM	13393	O	LEU	B	395	45.687	52.685	41.201	1.00	27.95	O
ATOM	13394	N	HIS	B	396	46.523	53.443	43.137	1.00	35.00	N
ATOM	13396	CA	HIS	B	396	46.139	52.260	43.907	1.00	35.55	C
ATOM	13398	CB	HIS	B	396	47.373	51.493	44.387	1.00	35.98	C
ATOM	13401	CG	HIS	B	396	48.061	50.741	43.303	1.00	38.30	C
ATOM	13402	ND1	HIS	B	396	47.952	49.377	43.164	1.00	42.39	N
ATOM	13404	CE1	HIS	B	396	48.634	48.990	42.102	1.00	42.69	C
ATOM	13406	NE2	HIS	B	396	49.178	50.053	41.548	1.00	41.18	N
ATOM	13408	CD2	HIS	B	396	48.835	51.162	42.281	1.00	39.80	C
ATOM	13410	C	HIS	B	396	45.258	52.593	45.086	1.00	37.57	C
ATOM	13411	O	HIS	B	396	45.227	51.811	46.013	1.00	38.51	O
ATOM	13412	N	ASP	B	397	44.525	53.719	45.027	1.00	42.77	N
ATOM	13414	CA	ASP	B	397	43.501	54.090	46.028	1.00	44.20	C
ATOM	13416	CB	ASP	B	397	42.786	55.354	45.525	1.00	46.11	C
ATOM	13419	CG	ASP	B	397	42.135	56.163	46.636	1.00	46.21	C
ATOM	13420	OD1	ASP	B	397	40.945	55.886	46.921	1.00	47.63	O
ATOM	13421	OD2	ASP	B	397	42.718	57.106	47.236	1.00	37.91	O
ATOM	13422	C	ASP	B	397	42.490	52.940	46.286	1.00	44.77	C

Figure 5

ATOM	13423	O	ASP	B	397	41.929	52.422	45.330	1.00	46.09	O
ATOM	13424	N	ASN	B	398	42.307	52.523	47.549	1.00	45.51	N
ATOM	13426	CA	ASN	B	398	41.303	51.511	47.967	1.00	50.02	C
ATOM	13428	CB	ASN	B	398	41.224	51.360	49.491	1.00	53.98	C
ATOM	13431	CG	ASN	B	398	42.384	50.694	50.049	1.00	63.01	C
ATOM	13432	OD1	ASN	B	398	43.167	51.325	50.757	1.00	73.61	O
ATOM	13433	ND2	ASN	B	398	42.554	49.402	49.730	1.00	70.07	N
ATOM	13436	C	ASN	B	398	39.882	51.856	47.657	1.00	48.23	C
ATOM	13437	O	ASN	B	398	39.097	50.971	47.394	1.00	45.67	O
ATOM	13438	N	LYS	B	399	39.525	53.125	47.831	1.00	49.07	N
ATOM	13440	CA	LYS	B	399	38.138	53.555	47.646	1.00	52.97	C
ATOM	13442	CB	LYS	B	399	37.874	54.968	48.215	1.00	55.28	C
ATOM	13445	CG	LYS	B	399	38.290	55.184	49.685	1.00	60.24	C
ATOM	13448	CD	LYS	B	399	37.129	55.001	50.680	1.00	66.26	C
ATOM	13451	CE	LYS	B	399	36.350	56.306	50.922	1.00	68.25	C
ATOM	13454	NZ	LYS	B	399	35.754	56.831	49.649	1.00	70.08	N
ATOM	13458	C	LYS	B	399	37.848	53.503	46.148	1.00	49.66	C
ATOM	13459	O	LYS	B	399	37.047	52.695	45.707	1.00	46.23	O
ATOM	13460	N	GLU	B	400	38.571	54.315	45.375	1.00	48.18	N
ATOM	13462	CA	GLU	B	400	38.407	54.387	43.917	1.00	48.07	C
ATOM	13464	CB	GLU	B	400	39.369	55.414	43.329	1.00	48.20	C
ATOM	13467	CG	GLU	B	400	39.110	55.700	41.859	1.00	52.03	C
ATOM	13470	CD	GLU	B	400	37.903	56.583	41.627	1.00	51.09	C
ATOM	13471	OE1	GLU	B	400	37.682	57.012	40.467	1.00	43.41	O
ATOM	13472	OE2	GLU	B	400	37.192	56.858	42.615	1.00	52.40	O
ATOM	13473	C	GLU	B	400	38.575	53.062	43.151	1.00	46.13	C
ATOM	13474	O	GLU	B	400	37.865	52.825	42.172	1.00	40.35	O
ATOM	13475	N	PHE	B	401	39.489	52.205	43.606	1.00	46.07	N
ATOM	13477	CA	PHE	B	401	39.783	50.924	42.934	1.00	45.41	C
ATOM	13479	CB	PHE	B	401	41.194	50.980	42.312	1.00	38.06	C
ATOM	13482	CG	PHE	B	401	41.383	52.098	41.323	1.00	30.63	C
ATOM	13483	CD1	PHE	B	401	42.309	53.110	41.578	1.00	28.10	C
ATOM	13485	CE1	PHE	B	401	42.476	54.163	40.689	1.00	28.29	C
ATOM	13487	CZ	PHE	B	401	41.729	54.203	39.509	1.00	28.57	C
ATOM	13489	CE2	PHE	B	401	40.807	53.204	39.247	1.00	26.11	C
ATOM	13491	CD2	PHE	B	401	40.647	52.150	40.150	1.00	26.88	C
ATOM	13493	C	PHE	B	401	39.643	49.736	43.911	1.00	48.62	C
ATOM	13494	O	PHE	B	401	40.631	49.211	44.380	1.00	52.47	O
ATOM	13495	N	PRO	B	402	38.418	49.330	44.245	1.00	56.69	N
ATOM	13496	CA	PRO	B	402	38.195	48.323	45.288	1.00	57.74	C
ATOM	13498	CB	PRO	B	402	37.015	47.539	44.739	1.00	58.69	C
ATOM	13501	CG	PRO	B	402	36.170	48.646	44.083	1.00	58.35	C
ATOM	13504	CD	PRO	B	402	37.129	49.790	43.692	1.00	57.20	C
ATOM	13507	C	PRO	B	402	39.401	47.440	45.632	1.00	59.86	C
ATOM	13508	O	PRO	B	402	39.966	47.660	46.712	1.00	68.42	O
ATOM	13509	N	ASN	B	403	39.812	46.503	44.792	1.00	56.84	N
ATOM	13511	CA	ASN	B	403	40.953	45.663	45.157	1.00	58.12	C
ATOM	13513	CB	ASN	B	403	40.605	44.168	44.991	1.00	61.93	C
ATOM	13516	CG	ASN	B	403	39.306	43.777	45.710	1.00	64.70	C
ATOM	13517	OD1	ASN	B	403	39.275	43.626	46.926	1.00	68.82	O
ATOM	13518	ND2	ASN	B	403	38.232	43.623	44.952	1.00	68.38	N
ATOM	13521	C	ASN	B	403	42.168	46.053	44.315	1.00	55.99	C
ATOM	13522	O	ASN	B	403	42.435	45.424	43.295	1.00	53.64	O
ATOM	13523	N	PRO	B	404	42.932	47.055	44.750	1.00	53.36	N
ATOM	13524	CA	PRO	B	404	43.845	47.755	43.843	1.00	51.93	C
ATOM	13526	CB	PRO	B	404	44.259	48.999	44.650	1.00	49.92	C
ATOM	13529	CG	PRO	B	404	44.190	48.576	46.065	1.00	51.28	C
ATOM	13532	CD	PRO	B	404	43.071	47.550	46.130	1.00	55.07	C
ATOM	13535	C	PRO	B	404	45.062	46.910	43.402	1.00	52.95	C
ATOM	13536	O	PRO	B	404	45.730	47.306	42.449	1.00	48.68	O
ATOM	13537	N	GLU	B	405	45.322	45.768	44.040	1.00	54.48	N
ATOM	13539	CA	GLU	B	405	46.463	44.924	43.667	1.00	55.71	C
ATOM	13541	CB	GLU	B	405	47.097	44.273	44.892	1.00	60.17	C
ATOM	13544	CG	GLU	B	405	47.567	45.262	45.958	1.00	70.90	C
ATOM	13547	CD	GLU	B	405	48.835	46.036	45.574	1.00	75.49	C
ATOM	13548	OE1	GLU	B	405	49.899	45.796	46.195	1.00	78.46	O
ATOM	13549	OE2	GLU	B	405	48.766	46.902	44.670	1.00	80.00	O
ATOM	13550	C	GLU	B	405	46.121	43.843	42.678	1.00	53.14	C
ATOM	13551	O	GLU	B	405	46.995	43.085	42.296	1.00	57.00	O
ATOM	13552	N	MET	B	406	44.862	43.762	42.269	1.00	53.26	N
ATOM	13554	CA	MET	B	406	44.443	42.839	41.216	1.00	54.32	C
ATOM	13556	CB	MET	B	406	43.053	42.278	41.522	1.00	59.26	C
ATOM	13559	CG	MET	B	406	42.890	41.634	42.892	1.00	65.55	C
ATOM	13562	SD	MET	B	406	43.903	40.165	43.059	1.00	73.73	S
ATOM	13563	CE	MET	B	406	43.123	38.951	41.829	1.00	66.04	C
ATOM	13567	C	MET	B	406	44.364	43.525	39.842	1.00	49.65	C

[illegible]

Figure 5

ATOM	13706	CB	GLU	B	415	25.774	50.120	35.004	1.00	78.38	C
ATOM	13709	CG	GLU	B	415	25.727	51.452	34.216	1.00	84.92	C
ATOM	13712	CD	GLU	B	415	25.231	52.670	35.025	1.00	90.18	C
ATOM	13713	OE1	GLU	B	415	25.543	52.769	36.239	1.00	93.04	O
ATOM	13714	OE2	GLU	B	415	24.539	53.554	34.438	1.00	93.54	O
ATOM	13715	C	GLU	B	415	26.992	48.411	33.561	1.00	70.54	C
ATOM	13716	O	GLU	B	415	27.021	47.177	33.644	1.00	66.03	O
ATOM	13717	N	GLY	B	416	26.886	49.054	32.389	1.00	70.90	N
ATOM	13719	CA	GLY	B	416	26.936	48.359	31.101	1.00	73.04	C
ATOM	13722	C	GLY	B	416	28.365	47.964	30.733	1.00	75.08	C
ATOM	13723	O	GLY	B	416	29.120	47.485	31.585	1.00	81.29	O
ATOM	13724	N	GLY	B	417	28.756	48.128	29.473	1.00	72.70	N
ATOM	13726	CA	GLY	B	417	30.180	48.127	29.134	1.00	69.51	C
ATOM	13729	C	GLY	B	417	30.680	49.502	29.541	1.00	64.77	C
ATOM	13730	O	GLY	B	417	30.852	49.778	30.715	1.00	67.45	O
ATOM	13731	N	ASN	B	418	30.853	50.381	28.567	1.00	60.66	N
ATOM	13733	CA	ASN	B	418	30.988	51.833	28.798	1.00	58.32	C
ATOM	13735	CB	ASN	B	418	29.667	52.483	29.278	1.00	59.79	C
ATOM	13738	CG	ASN	B	418	28.415	51.742	28.775	1.00	65.54	C
ATOM	13739	OD1	ASN	B	418	27.708	51.080	29.556	1.00	71.46	O
ATOM	13740	ND2	ASN	B	418	28.151	51.826	27.469	1.00	62.12	N
ATOM	13743	C	ASN	B	418	32.177	52.228	29.684	1.00	52.88	C
ATOM	13744	O	ASN	B	418	32.330	51.802	30.828	1.00	43.58	O
ATOM	13745	N	PHE	B	419	33.050	53.041	29.122	1.00	50.18	N
ATOM	13747	CA	PHE	B	419	34.307	53.302	29.778	1.00	47.92	C
ATOM	13749	CB	PHE	B	419	35.324	53.889	28.791	1.00	46.10	C
ATOM	13752	CG	PHE	B	419	36.619	54.305	29.431	1.00	48.82	C
ATOM	13753	CD1	PHE	B	419	37.615	53.369	29.690	1.00	48.54	C
ATOM	13755	CE1	PHE	B	419	38.803	53.746	30.291	1.00	47.18	C
ATOM	13757	CZ	PHE	B	419	39.017	55.070	30.629	1.00	48.70	C
ATOM	13759	CE2	PHE	B	419	38.030	56.021	30.376	1.00	47.42	C
ATOM	13761	CD2	PHE	B	419	36.842	55.634	29.778	1.00	46.92	C
ATOM	13763	C	PHE	B	419	34.002	54.227	30.944	1.00	45.88	C
ATOM	13764	O	PHE	B	419	33.315	55.231	30.776	1.00	45.25	O
ATOM	13765	N	LYS	B	420	34.477	53.846	32.128	1.00	46.97	N
ATOM	13767	CA	LYS	B	420	34.353	54.650	33.357	1.00	43.93	C
ATOM	13769	CB	LYS	B	420	33.944	53.759	34.547	1.00	43.06	C
ATOM	13772	CG	LYS	B	420	33.539	54.533	35.807	1.00	43.99	C
ATOM	13775	CD	LYS	B	420	33.715	53.735	37.128	1.00	48.52	C
ATOM	13778	CE	LYS	B	420	33.486	52.231	36.998	1.00	49.39	C
ATOM	13781	NZ	LYS	B	420	33.530	51.583	38.349	1.00	52.83	N
ATOM	13785	C	LYS	B	420	35.672	55.345	33.676	1.00	39.84	C
ATOM	13786	O	LYS	B	420	36.562	54.728	34.237	1.00	40.13	O
ATOM	13787	N	LYS	B	421	35.779	56.631	33.349	1.00	37.34	N
ATOM	13789	CA	LYS	B	421	37.002	57.407	33.577	1.00	38.71	C
ATOM	13791	CB	LYS	B	421	36.958	58.751	32.821	1.00	39.76	C
ATOM	13794	CG	LYS	B	421	36.041	59.820	33.375	1.00	40.83	C
ATOM	13797	CD	LYS	B	421	35.922	60.968	32.387	1.00	41.52	C
ATOM	13800	CE	LYS	B	421	34.976	62.051	32.900	1.00	41.77	C
ATOM	13803	NZ	LYS	B	421	35.055	63.246	32.038	1.00	41.71	N
ATOM	13807	C	LYS	B	421	37.279	57.610	35.062	1.00	38.57	C
ATOM	13808	O	LYS	B	421	36.532	57.155	35.893	1.00	43.57	O
ATOM	13809	N	SER	B	422	38.380	58.261	35.398	1.00	40.86	N
ATOM	13811	CA	SER	B	422	38.773	58.383	36.800	1.00	38.91	C
ATOM	13813	CB	SER	B	422	39.284	57.047	37.335	1.00	36.21	C
ATOM	13816	OG	SER	B	422	39.717	57.198	38.665	1.00	36.89	O
ATOM	13818	C	SER	B	422	39.838	59.441	36.947	1.00	38.13	C
ATOM	13819	O	SER	B	422	40.744	59.531	36.141	1.00	41.75	O
ATOM	13820	N	LYS	B	423	39.708	60.270	37.962	1.00	41.81	N
ATOM	13822	CA	LYS	B	423	40.656	61.357	38.162	1.00	44.22	C
ATOM	13824	CB	LYS	B	423	40.050	62.515	38.990	1.00	46.38	C
ATOM	13827	CG	LYS	B	423	39.094	62.107	40.128	1.00	50.12	C
ATOM	13830	CD	LYS	B	423	38.448	63.331	40.796	1.00	54.96	C
ATOM	13833	CE	LYS	B	423	37.880	63.022	42.203	1.00	56.74	C
ATOM	13836	NZ	LYS	B	423	38.055	64.188	43.138	1.00	55.00	N
ATOM	13840	C	LYS	B	423	41.882	60.758	38.831	1.00	44.12	C
ATOM	13841	O	LYS	B	423	42.941	61.386	38.869	1.00	40.95	O
ATOM	13842	N	TYR	B	424	41.717	59.532	39.339	1.00	42.99	N
ATOM	13844	CA	TYR	B	424	42.783	58.795	40.014	1.00	47.27	C
ATOM	13846	CB	TYR	B	424	42.185	57.780	41.022	1.00	48.62	C
ATOM	13849	CG	TYR	B	424	41.593	58.404	42.275	1.00	52.47	C
ATOM	13850	CD1	TYR	B	424	42.290	58.402	43.482	1.00	55.93	C
ATOM	13852	CE1	TYR	B	424	41.745	58.970	44.626	1.00	58.11	C
ATOM	13854	CZ	TYR	B	424	40.491	59.556	44.564	1.00	57.57	C
ATOM	13855	OH	TYR	B	424	39.919	60.133	45.673	1.00	51.80	O
ATOM	13857	CE2	TYR	B	424	39.790	59.562	43.380	1.00	55.47	C

390/514

Figure 5

ATOM	13859	CD2	TYR	B	424	40.333	58.983	42.252	1.00	53.81	C
ATOM	13861	C	TYR	B	424	43.730	58.076	39.018	1.00	43.68	C
ATOM	13862	O	TYR	B	424	44.614	57.303	39.419	1.00	39.65	O
ATOM	13863	N	PHE	B	425	43.527	58.334	37.731	1.00	38.81	N
ATOM	13865	CA	PHE	B	425	44.346	57.760	36.670	1.00	35.42	C
ATOM	13867	CB	PHE	B	425	43.467	57.423	35.488	1.00	28.73	C
ATOM	13870	CG	PHE	B	425	44.194	56.830	34.352	1.00	30.69	C
ATOM	13871	CD1	PHE	B	425	44.575	55.486	34.383	1.00	31.21	C
ATOM	13873	CE1	PHE	B	425	45.279	54.916	33.302	1.00	30.40	C
ATOM	13875	CZ	PHE	B	425	45.590	55.709	32.180	1.00	30.46	C
ATOM	13877	CE2	PHE	B	425	45.197	57.063	32.148	1.00	28.72	C
ATOM	13879	CD2	PHE	B	425	44.510	57.609	33.229	1.00	27.28	C
ATOM	13881	C	PHE	B	425	45.444	58.767	36.290	1.00	37.78	C
ATOM	13882	O	PHE	B	425	45.272	59.583	35.386	1.00	40.34	O
ATOM	13883	N	MET	B	426	46.559	58.706	37.015	1.00	34.73	N
ATOM	13885	CA	MET	B	426	47.688	59.609	36.832	1.00	36.72	C
ATOM	13887	CB	MET	B	426	47.873	60.394	38.108	1.00	36.97	C
ATOM	13890	CG	MET	B	426	46.662	61.055	38.603	1.00	41.59	C
ATOM	13893	SD	MET	B	426	47.129	61.851	40.107	1.00	43.25	S
ATOM	13894	CE	MET	B	426	47.965	63.184	39.532	1.00	45.49	C
ATOM	13898	C	MET	B	426	49.062	58.933	36.537	1.00	34.33	C
ATOM	13899	O	MET	B	426	50.076	59.351	37.104	1.00	33.11	O
ATOM	13900	N	PRO	B	427	49.118	57.924	35.670	1.00	29.68	N
ATOM	13901	CA	PRO	B	427	50.385	57.238	35.377	1.00	27.28	C
ATOM	13903	CB	PRO	B	427	49.957	56.087	34.489	1.00	27.83	C
ATOM	13906	CG	PRO	B	427	48.661	56.546	33.890	1.00	30.49	C
ATOM	13909	CD	PRO	B	427	47.996	57.389	34.879	1.00	28.87	C
ATOM	13912	C	PRO	B	427	51.365	58.129	34.632	1.00	29.41	C
ATOM	13913	O	PRO	B	427	52.559	57.893	34.675	1.00	29.15	O
ATOM	13914	N	PHE	B	428	50.819	59.144	33.975	1.00	30.52	N
ATOM	13916	CA	PHE	B	428	51.570	60.173	33.296	1.00	29.97	C
ATOM	13918	CB	PHE	B	428	50.790	60.622	32.048	1.00	28.79	C
ATOM	13921	CG	PHE	B	428	50.625	59.548	31.018	1.00	28.17	C
ATOM	13922	CD1	PHE	B	428	49.437	58.860	30.899	1.00	21.30	C
ATOM	13924	CE1	PHE	B	428	49.278	57.847	29.948	1.00	23.26	C
ATOM	13926	CZ	PHE	B	428	50.310	57.510	29.114	1.00	25.02	C
ATOM	13928	CE2	PHE	B	428	51.529	58.181	29.226	1.00	32.81	C
ATOM	13930	CD2	PHE	B	428	51.684	59.200	30.179	1.00	33.48	C
ATOM	13932	C	PHE	B	428	51.767	61.381	34.165	1.00	29.38	C
ATOM	13933	O	PHE	B	428	52.210	62.401	33.669	1.00	29.91	O
ATOM	13934	N	SER	B	429	51.421	61.279	35.446	1.00	31.88	N
ATOM	13936	CA	SER	B	429	51.411	62.429	36.376	1.00	32.94	C
ATOM	13938	CB	SER	B	429	52.771	63.134	36.352	1.00	32.09	C
ATOM	13941	OG	SER	B	429	52.882	63.920	37.511	1.00	32.46	O
ATOM	13943	C	SER	B	429	50.267	63.460	36.135	1.00	34.60	C
ATOM	13944	O	SER	B	429	49.258	63.135	35.505	1.00	35.01	O
ATOM	13945	N	ALA	B	430	50.435	64.695	36.631	1.00	35.64	N
ATOM	13947	CA	ALA	B	430	49.419	65.739	36.493	1.00	33.65	C
ATOM	13949	CB	ALA	B	430	48.401	65.569	37.528	1.00	32.06	C
ATOM	13953	C	ALA	B	430	49.961	67.158	36.575	1.00	35.90	C
ATOM	13954	O	ALA	B	430	51.034	67.394	37.126	1.00	38.64	O
ATOM	13955	N	GLY	B	431	49.198	68.105	36.029	1.00	33.84	N
ATOM	13957	CA	GLY	B	431	49.535	69.503	36.133	1.00	32.80	C
ATOM	13960	C	GLY	B	431	50.562	69.987	35.138	1.00	31.13	C
ATOM	13961	O	GLY	B	431	50.703	69.443	34.054	1.00	28.96	O
ATOM	13962	N	LYS	B	432	51.278	71.033	35.526	1.00	32.78	N
ATOM	13964	CA	LYS	B	432	52.176	71.743	34.622	1.00	39.69	C
ATOM	13966	CB	LYS	B	432	52.771	72.984	35.321	1.00	44.44	C
ATOM	13969	CG	LYS	B	432	51.806	74.163	35.477	1.00	49.83	C
ATOM	13972	CD	LYS	B	432	51.760	75.042	34.208	1.00	57.11	C
ATOM	13975	CE	LYS	B	432	51.023	76.415	34.415	1.00	59.68	C
ATOM	13978	NZ	LYS	B	432	50.228	76.508	35.673	1.00	54.74	N
ATOM	13982	C	LYS	B	432	53.307	70.886	34.035	1.00	38.47	C
ATOM	13983	O	LYS	B	432	53.862	71.249	32.988	1.00	37.30	O
ATOM	13984	N	ARG	B	433	53.633	69.769	34.701	1.00	37.13	N
ATOM	13986	CA	ARG	B	433	54.715	68.860	34.288	1.00	35.10	C
ATOM	13988	CB	ARG	B	433	55.635	68.556	35.459	1.00	35.77	C
ATOM	13991	CG	ARG	B	433	56.653	69.607	35.718	1.00	34.67	C
ATOM	13994	CD	ARG	B	433	57.909	69.481	34.891	1.00	36.31	C
ATOM	13997	NE	ARG	B	433	58.840	70.543	35.269	1.00	33.46	N
ATOM	13999	CZ	ARG	B	433	60.049	70.717	34.760	1.00	33.91	C
ATOM	14000	NH1	ARG	B	433	60.551	69.895	33.841	1.00	30.52	N
ATOM	14003	NH2	ARG	B	433	60.776	71.738	35.184	1.00	38.01	N
ATOM	14006	C	ARG	B	433	54.231	67.534	33.770	1.00	34.13	C
ATOM	14007	O	ARG	B	433	55.034	66.640	33.541	1.00	40.46	O
ATOM	14008	N	ILE	B	434	52.932	67.385	33.579	1.00	34.22	N

391/514

Figure 5

ATOM	14010	CA	ILE	B	434	52.369	66.122	33.111	1.00	30.98	C
ATOM	14012	CB	ILE	B	434	50.851	66.323	32.824	1.00	33.97	C
ATOM	14014	CG1	ILE	B	434	50.158	64.995	32.552	1.00	37.82	C
ATOM	14017	CD1	ILE	B	434	48.715	65.150	32.210	1.00	37.71	C
ATOM	14021	CG2	ILE	B	434	50.621	67.264	31.638	1.00	29.10	C
ATOM	14025	C	ILE	B	434	53.137	65.625	31.870	1.00	28.89	C
ATOM	14026	O	ILE	B	434	53.617	66.415	31.049	1.00	24.65	O
ATOM	14027	N	CYS	B	435	53.284	64.317	31.742	1.00	29.01	N
ATOM	14029	CA	CYS	B	435	54.013	63.738	30.605	1.00	32.38	C
ATOM	14031	CB	CYS	B	435	53.716	62.250	30.490	1.00	35.24	C
ATOM	14034	SG	CYS	B	435	54.402	61.523	28.992	1.00	40.22	S
ATOM	14035	C	CYS	B	435	53.683	64.392	29.255	1.00	32.75	C
ATOM	14036	O	CYS	B	435	52.552	64.329	28.783	1.00	33.03	O
ATOM	14037	N	VAL	B	436	54.696	64.984	28.635	1.00	34.51	N
ATOM	14039	CA	VAL	B	436	54.588	65.631	27.329	1.00	33.47	C
ATOM	14041	CB	VAL	B	436	55.970	66.177	26.898	1.00	36.40	C
ATOM	14043	CG1	VAL	B	436	56.076	66.372	25.382	1.00	37.83	C
ATOM	14047	CG2	VAL	B	436	56.271	67.472	27.618	1.00	36.90	C
ATOM	14051	C	VAL	B	436	54.126	64.667	26.255	1.00	34.30	C
ATOM	14052	O	VAL	B	436	53.621	65.092	25.217	1.00	34.32	O
ATOM	14053	N	GLY	B	437	54.347	63.374	26.481	1.00	34.06	N
ATOM	14055	CA	GLY	B	437	54.048	62.364	25.492	1.00	32.38	C
ATOM	14058	C	GLY	B	437	52.836	61.542	25.811	1.00	31.69	C
ATOM	14059	O	GLY	B	437	52.709	60.414	25.350	1.00	32.98	O
ATOM	14060	N	GLU	B	438	51.918	62.118	26.568	1.00	32.48	N
ATOM	14062	CA	GLU	B	438	50.712	61.407	26.990	1.00	34.87	C
ATOM	14064	CB	GLU	B	438	49.891	62.335	27.877	1.00	39.60	C
ATOM	14067	CG	GLU	B	438	48.772	61.652	28.638	1.00	42.64	C
ATOM	14070	CD	GLU	B	438	47.861	62.627	29.368	1.00	45.69	C
ATOM	14071	OE1	GLU	B	438	46.970	62.099	30.086	1.00	47.35	O
ATOM	14072	OE2	GLU	B	438	48.036	63.888	29.232	1.00	40.97	O
ATOM	14073	C	GLU	B	438	49.853	60.945	25.815	1.00	32.97	C
ATOM	14074	O	GLU	B	438	49.327	59.833	25.809	1.00	33.53	O
ATOM	14075	N	ALA	B	439	49.706	61.825	24.829	1.00	34.53	N
ATOM	14077	CA	ALA	B	439	48.920	61.538	23.646	1.00	31.79	C
ATOM	14079	CB	ALA	B	439	48.662	62.818	22.860	1.00	32.69	C
ATOM	14083	C	ALA	B	439	49.628	60.502	22.809	1.00	28.56	C
ATOM	14084	O	ALA	B	439	49.043	59.482	22.475	1.00	35.49	O
ATOM	14085	N	LEU	B	440	50.900	60.734	22.518	1.00	31.48	N
ATOM	14087	CA	LEU	B	440	51.722	59.764	21.787	1.00	29.25	C
ATOM	14089	CB	LEU	B	440	53.156	60.275	21.637	1.00	31.94	C
ATOM	14092	CG	LEU	B	440	54.095	59.363	20.846	1.00	32.31	C
ATOM	14094	CD1	LEU	B	440	53.470	58.965	19.540	1.00	31.94	C
ATOM	14098	CD2	LEU	B	440	55.442	60.018	20.603	1.00	32.78	C
ATOM	14102	C	LEU	B	440	51.729	58.417	22.493	1.00	26.20	C
ATOM	14103	O	LEU	B	440	51.444	57.383	21.907	1.00	26.10	O
ATOM	14104	N	ALA	B	441	51.987	58.415	23.775	1.00	21.31	N
ATOM	14106	CA	ALA	B	441	51.999	57.156	24.463	1.00	23.54	C
ATOM	14108	CB	ALA	B	441	52.284	57.369	25.908	1.00	25.96	C
ATOM	14112	C	ALA	B	441	50.710	56.355	24.273	1.00	27.86	C
ATOM	14113	O	ALA	B	441	50.762	55.161	23.955	1.00	29.47	O
ATOM	14114	N	GLY	B	442	49.557	56.987	24.473	1.00	29.74	N
ATOM	14116	CA	GLY	B	442	48.308	56.248	24.516	1.00	30.14	C
ATOM	14119	C	GLY	B	442	47.949	55.788	23.125	1.00	29.94	C
ATOM	14120	O	GLY	B	442	47.376	54.717	22.909	1.00	34.52	O
ATOM	14121	N	MET	B	443	48.296	56.615	22.161	1.00	28.36	N
ATOM	14123	CA	MET	B	443	48.218	56.221	20.759	1.00	29.93	C
ATOM	14125	CB	MET	B	443	48.620	57.432	19.917	1.00	32.31	C
ATOM	14128	CG	MET	B	443	48.415	57.317	18.423	1.00	38.23	C
ATOM	14131	SD	MET	B	443	48.720	58.889	17.510	1.00	44.25	S
ATOM	14132	CE	MET	B	443	48.573	60.154	18.697	1.00	41.47	C
ATOM	14136	C	MET	B	443	49.084	54.972	20.422	1.00	28.36	C
ATOM	14137	O	MET	B	443	48.623	54.087	19.743	1.00	29.12	O
ATOM	14138	N	GLU	B	444	50.333	54.910	20.887	1.00	29.24	N
ATOM	14140	CA	GLU	B	444	51.187	53.717	20.720	1.00	28.50	C
ATOM	14142	CB	GLU	B	444	52.623	53.965	21.248	1.00	31.85	C
ATOM	14145	CG	GLU	B	444	53.419	55.006	20.465	1.00	31.73	C
ATOM	14148	CD	GLU	B	444	54.884	55.096	20.852	1.00	37.45	C
ATOM	14149	OE1	GLU	B	444	55.615	54.100	20.688	1.00	47.19	O
ATOM	14150	OE2	GLU	B	444	55.344	56.170	21.272	1.00	43.24	O
ATOM	14151	C	GLU	B	444	50.588	52.506	21.427	1.00	26.86	C
ATOM	14152	O	GLU	B	444	50.471	51.448	20.829	1.00	30.18	O
ATOM	14153	N	LEU	B	445	50.172	52.649	22.680	1.00	22.53	N
ATOM	14155	CA	LEU	B	445	49.597	51.505	23.404	1.00	24.31	C
ATOM	14157	CB	LEU	B	445	49.231	51.872	24.827	1.00	23.96	C
ATOM	14160	CG	LEU	B	445	50.359	52.423	25.690	1.00	24.61	C

392/514

Figure 5

ATOM	14162	CD1	LEU	B	445	49.838	52.783	27.098	1.00	25.78	C
ATOM	14166	CD2	LEU	B	445	51.503	51.408	25.757	1.00	24.67	C
ATOM	14170	C	LEU	B	445	48.350	50.914	22.762	1.00	30.91	C
ATOM	14171	O	LEU	B	445	48.216	49.665	22.642	1.00	32.61	O
ATOM	14172	N	PHE	B	446	47.417	51.789	22.378	1.00	30.26	N
ATOM	14174	CA	PHE	B	446	46.136	51.327	21.854	1.00	27.67	C
ATOM	14176	CB	PHE	B	446	45.129	52.485	21.714	1.00	32.47	C
ATOM	14179	CG	PHE	B	446	43.833	52.067	21.079	1.00	32.31	C
ATOM	14180	CD1	PHE	B	446	43.607	52.268	19.726	1.00	34.56	C
ATOM	14182	CE1	PHE	B	446	42.449	51.839	19.140	1.00	31.54	C
ATOM	14184	CZ	PHE	B	446	41.488	51.209	19.896	1.00	31.06	C
ATOM	14186	CE2	PHE	B	446	41.697	51.004	21.223	1.00	31.82	C
ATOM	14188	CD2	PHE	B	446	42.870	51.421	21.815	1.00	30.95	C
ATOM	14190	C	PHE	B	446	46.359	50.646	20.508	1.00	26.31	C
ATOM	14191	O	PHE	B	446	45.887	49.518	20.290	1.00	21.96	O
ATOM	14192	N	LEU	B	447	47.087	51.331	19.622	1.00	23.21	N
ATOM	14194	CA	LEU	B	447	47.286	50.871	18.243	1.00	25.15	C
ATOM	14196	CB	LEU	B	447	47.752	52.013	17.346	1.00	24.66	C
ATOM	14199	CG	LEU	B	447	46.864	53.249	17.182	1.00	27.82	C
ATOM	14201	CD1	LEU	B	447	47.613	54.334	16.443	1.00	26.52	C
ATOM	14205	CD2	LEU	B	447	45.613	52.911	16.424	1.00	28.48	C
ATOM	14209	C	LEU	B	447	48.288	49.705	18.124	1.00	28.23	C
ATOM	14210	O	LEU	B	447	48.149	48.848	17.255	1.00	24.09	O
ATOM	14211	N	PHE	B	448	49.297	49.657	18.979	1.00	29.30	N
ATOM	14213	CA	PHE	B	448	50.202	48.511	18.925	1.00	32.24	C
ATOM	14215	CB	PHE	B	448	51.507	48.735	19.697	1.00	30.95	C
ATOM	14218	CG	PHE	B	448	52.456	49.687	19.049	1.00	26.44	C
ATOM	14219	CD1	PHE	B	448	52.393	49.979	17.712	1.00	29.10	C
ATOM	14221	CE1	PHE	B	448	53.301	50.874	17.136	1.00	32.04	C
ATOM	14223	CZ	PHE	B	448	54.257	51.478	17.897	1.00	28.55	C
ATOM	14225	CE2	PHE	B	448	54.328	51.189	19.232	1.00	30.25	C
ATOM	14227	CD2	PHE	B	448	53.433	50.290	19.799	1.00	28.44	C
ATOM	14229	C	PHE	B	448	49.502	47.276	19.472	1.00	33.10	C
ATOM	14230	O	PHE	B	448	49.677	46.185	18.928	1.00	35.96	O
ATOM	14231	N	LEU	B	449	48.724	47.435	20.534	1.00	29.14	N
ATOM	14233	CA	LEU	B	449	48.137	46.269	21.175	1.00	33.26	C
ATOM	14235	CB	LEU	B	449	47.697	46.569	22.612	1.00	34.61	C
ATOM	14238	CG	LEU	B	449	48.858	46.765	23.570	1.00	40.31	C
ATOM	14240	CD1	LEU	B	449	48.358	47.256	24.913	1.00	41.87	C
ATOM	14244	CD2	LEU	B	449	49.624	45.451	23.731	1.00	44.34	C
ATOM	14248	C	LEU	B	449	46.971	45.750	20.370	1.00	32.56	C
ATOM	14249	O	LEU	B	449	46.783	44.547	20.249	1.00	38.27	O
ATOM	14250	N	THR	B	450	46.172	46.647	19.816	1.00	36.85	N
ATOM	14252	CA	THR	B	450	45.076	46.194	18.967	1.00	36.42	C
ATOM	14254	CB	THR	B	450	44.054	47.316	18.630	1.00	35.30	C
ATOM	14256	OG1	THR	B	450	44.716	48.456	18.053	1.00	36.21	O
ATOM	14258	CG2	THR	B	450	43.367	47.818	19.896	1.00	32.98	C
ATOM	14262	C	THR	B	450	45.647	45.566	17.703	1.00	34.14	C
ATOM	14263	O	THR	B	450	45.146	44.549	17.256	1.00	35.23	O
ATOM	14264	N	SER	B	451	46.702	46.149	17.137	1.00	34.82	N
ATOM	14266	CA	SER	B	451	47.322	45.559	15.943	1.00	34.92	C
ATOM	14268	CB	SER	B	451	48.419	46.455	15.393	1.00	35.63	C
ATOM	14271	OG	SER	B	451	47.862	47.661	14.897	1.00	32.42	O
ATOM	14273	C	SER	B	451	47.862	44.152	16.207	1.00	35.55	C
ATOM	14274	O	SER	B	451	47.775	43.288	15.349	1.00	36.73	O
ATOM	14275	N	ILE	B	452	48.383	43.919	17.404	1.00	35.86	N
ATOM	14277	CA	ILE	B	452	48.900	42.607	17.766	1.00	36.18	C
ATOM	14279	CB	ILE	B	452	49.729	42.691	19.068	1.00	34.03	C
ATOM	14281	CG1	ILE	B	452	51.053	43.414	18.781	1.00	37.15	C
ATOM	14284	CD1	ILE	B	452	51.761	43.930	20.019	1.00	36.26	C
ATOM	14288	CG2	ILE	B	452	50.034	41.336	19.598	1.00	33.84	C
ATOM	14292	C	ILE	B	452	47.775	41.581	17.880	1.00	36.81	C
ATOM	14293	O	ILE	B	452	47.864	40.509	17.318	1.00	36.09	O
ATOM	14294	N	LEU	B	453	46.710	41.913	18.589	1.00	37.53	N
ATOM	14296	CA	LEU	B	453	45.697	40.922	18.903	1.00	38.81	C
ATOM	14298	CB	LEU	B	453	44.970	41.333	20.161	1.00	41.94	C
ATOM	14301	CG	LEU	B	453	45.786	41.492	21.430	1.00	41.74	C
ATOM	14303	CD1	LEU	B	453	44.904	42.137	22.481	1.00	41.29	C
ATOM	14307	CD2	LEU	B	453	46.296	40.141	21.903	1.00	42.27	C
ATOM	14311	C	LEU	B	453	44.693	40.739	17.776	1.00	40.51	C
ATOM	14312	O	LEU	B	453	43.886	39.816	17.776	1.00	41.15	O
ATOM	14313	N	GLN	B	454	44.734	41.667	16.836	1.00	45.30	N
ATOM	14315	CA	GLN	B	454	44.021	41.555	15.573	1.00	45.13	C
ATOM	14317	CB	GLN	B	454	44.062	42.900	14.810	1.00	42.80	C
ATOM	14320	CG	GLN	B	454	43.790	42.793	13.319	1.00	42.59	C
ATOM	14323	CD	GLN	B	454	43.665	44.139	12.619	1.00	40.89	C

393/514

Figure 5

ATOM	14324	OE1	GLN	B	454	42.583	44.504	12.167	1.00	39.19	O
ATOM	14325	NE2	GLN	B	454	44.777	44.858	12.499	1.00	37.63	N
ATOM	14328	C	GLN	B	454	44.665	40.447	14.741	1.00	44.80	C
ATOM	14329	O	GLN	B	454	43.933	39.668	14.115	1.00	43.25	O
ATOM	14330	N	ASN	B	455	46.014	40.393	14.751	1.00	43.45	N
ATOM	14332	CA	ASN	B	455	46.814	39.480	13.902	1.00	44.89	C
ATOM	14334	CB	ASN	B	455	47.982	40.253	13.247	1.00	43.42	C
ATOM	14337	CG	ASN	B	455	47.515	41.397	12.300	1.00	42.65	C
ATOM	14338	OD1	ASN	B	455	47.123	41.169	11.157	1.00	44.79	O
ATOM	14339	ND2	ASN	B	455	47.602	42.623	12.776	1.00	38.29	N
ATOM	14342	C	ASN	B	455	47.365	38.174	14.572	1.00	46.72	C
ATOM	14343	O	ASN	B	455	47.703	37.198	13.874	1.00	43.56	O
ATOM	14344	N	PHE	B	456	47.422	38.151	15.908	1.00	48.50	N
ATOM	14346	CA	PHE	B	456	47.967	37.017	16.679	1.00	46.70	C
ATOM	14348	CB	PHE	B	456	49.403	37.312	17.149	1.00	45.78	C
ATOM	14351	CG	PHE	B	456	50.326	37.756	16.039	1.00	44.56	C
ATOM	14352	CD1	PHE	B	456	50.807	36.846	15.117	1.00	41.63	C
ATOM	14354	CE1	PHE	B	456	51.618	37.253	14.100	1.00	45.45	C
ATOM	14356	CZ	PHE	B	456	51.984	38.590	13.989	1.00	45.16	C
ATOM	14358	CE2	PHE	B	456	51.525	39.497	14.897	1.00	43.66	C
ATOM	14360	CD2	PHE	B	456	50.691	39.081	15.915	1.00	43.31	C
ATOM	14362	C	PHE	B	456	47.138	36.677	17.915	1.00	48.54	C
ATOM	14363	O	PHE	B	456	46.601	37.564	18.565	1.00	44.83	O
ATOM	14364	N	ASN	B	457	47.038	35.382	18.227	1.00	50.59	N
ATOM	14366	CA	ASN	B	457	46.747	34.926	19.593	1.00	49.53	C
ATOM	14368	CB	ASN	B	457	45.964	33.639	19.560	1.00	47.87	C
ATOM	14371	CG	ASN	B	457	44.751	33.745	18.698	1.00	49.67	C
ATOM	14372	OD1	ASN	B	457	43.952	34.676	18.843	1.00	53.28	O
ATOM	14373	ND2	ASN	B	457	44.600	32.804	17.777	1.00	48.52	N
ATOM	14376	C	ASN	B	457	48.041	34.733	20.377	1.00	48.33	C
ATOM	14377	O	ASN	B	457	49.099	34.586	19.794	1.00	51.94	O
ATOM	14378	N	LEU	B	458	47.965	34.754	21.693	1.00	48.38	N
ATOM	14380	CA	LEU	B	458	49.162	34.603	22.501	1.00	51.94	C
ATOM	14382	CB	LEU	B	458	49.245	35.744	23.520	1.00	52.08	C
ATOM	14385	CG	LEU	B	458	48.887	37.157	23.058	1.00	49.79	C
ATOM	14387	CD1	LEU	B	458	48.823	38.056	24.281	1.00	48.48	C
ATOM	14391	CD2	LEU	B	458	49.880	37.707	22.028	1.00	51.18	C
ATOM	14395	C	LEU	B	458	49.172	33.251	23.220	1.00	53.50	C
ATOM	14396	O	LEU	B	458	48.324	33.002	24.073	1.00	55.13	O
ATOM	14397	N	LYS	B	459	50.118	32.381	22.884	1.00	56.79	N
ATOM	14399	CA	LYS	B	459	50.225	31.085	23.547	1.00	62.31	C
ATOM	14401	CB	LYS	B	459	50.581	29.977	22.555	1.00	65.32	C
ATOM	14404	CG	LYS	B	459	50.675	28.574	23.165	1.00	68.73	C
ATOM	14407	CD	LYS	B	459	50.832	27.487	22.078	1.00	72.79	C
ATOM	14410	CE	LYS	B	459	50.131	26.174	22.461	1.00	73.74	C
ATOM	14413	NZ	LYS	B	459	50.789	25.496	23.608	1.00	73.66	N
ATOM	14417	C	LYS	B	459	51.294	31.186	24.600	1.00	64.98	C
ATOM	14418	O	LYS	B	459	52.408	31.610	24.310	1.00	62.96	O
ATOM	14419	N	SER	B	460	50.949	30.812	25.829	1.00	70.46	N
ATOM	14421	CA	SER	B	460	51.917	30.794	26.924	1.00	72.59	C
ATOM	14423	CB	SER	B	460	51.209	30.746	28.288	1.00	73.16	C
ATOM	14426	OG	SER	B	460	52.120	30.907	29.370	1.00	71.85	O
ATOM	14428	C	SER	B	460	52.792	29.575	26.750	1.00	74.55	C
ATOM	14429	O	SER	B	460	52.376	28.586	26.137	1.00	73.15	O
ATOM	14430	N	LEU	B	461	54.008	29.655	27.277	1.00	79.27	N
ATOM	14432	CA	LEU	B	461	54.916	28.512	27.268	1.00	82.90	C
ATOM	14434	CB	LEU	B	461	56.387	28.963	27.359	1.00	84.22	C
ATOM	14437	CG	LEU	B	461	57.221	28.731	26.090	1.00	85.47	C
ATOM	14439	CD1	LEU	B	461	57.130	29.938	25.169	1.00	85.07	C
ATOM	14443	CD2	LEU	B	461	58.686	28.377	26.409	1.00	86.44	C
ATOM	14447	C	LEU	B	461	54.558	27.594	28.431	1.00	83.87	C
ATOM	14448	O	LEU	B	461	54.062	26.488	28.221	1.00	82.91	O
ATOM	14449	N	VAL	B	462	54.778	28.093	29.650	1.00	86.59	N
ATOM	14451	CA	VAL	B	462	54.629	27.316	30.886	1.00	88.56	C
ATOM	14453	CB	VAL	B	462	55.729	27.725	31.933	1.00	89.56	C
ATOM	14455	CG1	VAL	B	462	55.418	29.092	32.587	1.00	88.82	C
ATOM	14459	CG2	VAL	B	462	55.954	26.612	32.991	1.00	90.60	C
ATOM	14463	C	VAL	B	462	53.222	27.424	31.500	1.00	88.48	C
ATOM	14464	O	VAL	B	462	53.030	27.135	32.677	1.00	87.72	O
ATOM	14465	N	ASP	B	463	52.246	27.824	30.690	1.00	88.81	N
ATOM	14467	CA	ASP	B	463	50.838	27.869	31.094	1.00	90.17	C
ATOM	14469	CB	ASP	B	463	50.356	26.513	31.636	1.00	91.94	C
ATOM	14472	CG	ASP	B	463	50.016	26.559	33.123	1.00	94.60	C
ATOM	14473	OD1	ASP	B	463	48.824	26.768	33.482	1.00	93.96	O
ATOM	14474	OD2	ASP	B	463	50.896	26.404	33.999	1.00	94.33	O
ATOM	14475	C	ASP	B	463	50.508	28.997	32.086	1.00	89.77	C

394/514

Figure 5

ATOM	14476	O	ASP B 463	51.241	29.234	33.050	1.00	87.64	O
ATOM	14477	N	PRO B 464	49.366	29.645	31.857	1.00	90.47	N
ATOM	14478	CA	PRO B 464	49.041	30.939	32.475	1.00	89.98	C
ATOM	14480	CB	PRO B 464	47.656	31.273	31.891	1.00	91.39	C
ATOM	14483	CG	PRO B 464	47.101	29.978	31.403	1.00	91.74	C
ATOM	14486	CD	PRO B 464	48.284	29.178	30.970	1.00	91.42	C
ATOM	14489	C	PRO B 464	48.971	30.969	33.993	1.00	88.81	C
ATOM	14490	O	PRO B 464	49.513	31.898	34.583	1.00	86.91	O
ATOM	14491	N	LYS B 465	48.299	30.007	34.615	1.00	89.19	N
ATOM	14493	CA	LYS B 465	48.081	30.075	36.062	1.00	89.98	C
ATOM	14495	CB	LYS B 465	47.213	28.903	36.537	1.00	90.51	C
ATOM	14498	CG	LYS B 465	46.954	28.908	38.047	1.00	91.19	C
ATOM	14501	CD	LYS B 465	45.653	28.175	38.437	1.00	90.99	C
ATOM	14504	CE	LYS B 465	44.937	28.881	39.610	1.00	89.64	C
ATOM	14507	NZ	LYS B 465	44.070	27.969	40.401	1.00	84.78	N
ATOM	14511	C	LYS B 465	49.406	30.129	36.850	1.00	89.65	C
ATOM	14512	O	LYS B 465	49.500	30.807	37.870	1.00	86.98	O
ATOM	14513	N	ASN B 466	50.426	29.434	36.353	1.00	89.41	N
ATOM	14515	CA	ASN B 466	51.726	29.371	37.023	1.00	89.80	C
ATOM	14517	CB	ASN B 466	52.527	28.154	36.522	1.00	91.85	C
ATOM	14520	CG	ASN B 466	53.311	27.457	37.640	1.00	93.86	C
ATOM	14521	OD1	ASN B 466	54.420	27.867	37.988	1.00	95.16	O
ATOM	14522	ND2	ASN B 466	52.731	26.399	38.205	1.00	93.33	N
ATOM	14525	C	ASN B 466	52.579	30.633	36.866	1.00	88.50	C
ATOM	14526	O	ASN B 466	53.573	30.797	37.576	1.00	88.39	O
ATOM	14527	N	LEU B 467	52.211	31.505	35.927	1.00	87.02	N
ATOM	14529	CA	LEU B 467	52.955	32.742	35.681	1.00	83.16	C
ATOM	14531	CB	LEU B 467	52.554	33.392	34.351	1.00	83.67	C
ATOM	14534	CG	LEU B 467	53.023	32.748	33.049	1.00	83.44	C
ATOM	14536	CD1	LEU B 467	52.295	33.383	31.880	1.00	84.01	C
ATOM	14540	CD2	LEU B 467	54.532	32.876	32.880	1.00	84.80	C
ATOM	14544	C	LEU B 467	52.732	33.752	36.787	1.00	80.74	C
ATOM	14545	O	LEU B 467	51.630	33.898	37.312	1.00	78.60	O
ATOM	14546	N	ASP B 468	53.791	34.476	37.101	1.00	78.52	N
ATOM	14548	CA	ASP B 468	53.759	35.456	38.155	1.00	78.88	C
ATOM	14550	CB	ASP B 468	54.910	35.178	39.105	1.00	82.16	C
ATOM	14553	CG	ASP B 468	54.902	36.093	40.293	1.00	86.23	C
ATOM	14554	OD1	ASP B 468	55.766	36.992	40.348	1.00	89.73	O
ATOM	14555	OD2	ASP B 468	54.059	35.997	41.210	1.00	88.09	O
ATOM	14556	C	ASP B 468	53.896	36.847	37.550	1.00	76.23	C
ATOM	14557	O	ASP B 468	54.754	37.068	36.702	1.00	75.67	O
ATOM	14558	N	THR B 469	53.053	37.778	37.984	1.00	73.67	N
ATOM	14560	CA	THR B 469	53.057	39.139	37.449	1.00	72.62	C
ATOM	14562	CB	THR B 469	51.706	39.461	36.795	1.00	70.88	C
ATOM	14564	OG1	THR B 469	50.710	39.709	37.796	1.00	68.76	O
ATOM	14566	CG2	THR B 469	51.179	38.261	36.027	1.00	69.44	C
ATOM	14570	C	THR B 469	53.395	40.172	38.523	1.00	75.78	C
ATOM	14571	O	THR B 469	52.973	41.328	38.446	1.00	75.09	O
ATOM	14572	N	THR B 470	54.170	39.732	39.512	1.00	78.39	N
ATOM	14574	CA	THR B 470	54.718	40.588	40.558	1.00	80.89	C
ATOM	14576	CB	THR B 470	55.472	39.699	41.612	1.00	84.63	C
ATOM	14578	OG1	THR B 470	54.549	38.799	42.240	1.00	87.74	O
ATOM	14580	CG2	THR B 470	56.079	40.518	42.785	1.00	85.74	C
ATOM	14584	C	THR B 470	55.700	41.601	39.952	1.00	78.04	C
ATOM	14585	O	THR B 470	56.792	41.214	39.489	1.00	74.28	O
ATOM	14586	N	PRO B 471	55.331	42.882	39.941	1.00	75.11	N
ATOM	14587	CA	PRO B 471	56.292	43.916	39.548	1.00	75.77	C
ATOM	14589	CB	PRO B 471	55.534	45.240	39.810	1.00	76.60	C
ATOM	14592	CG	PRO B 471	54.068	44.881	39.808	1.00	75.36	C
ATOM	14595	CD	PRO B 471	54.011	43.450	40.284	1.00	75.37	C
ATOM	14598	C	PRO B 471	57.573	43.817	40.387	1.00	74.36	C
ATOM	14599	O	PRO B 471	57.499	43.825	41.609	1.00	74.67	O
ATOM	14600	N	VAL B 472	58.714	43.657	39.725	1.00	73.58	N
ATOM	14602	CA	VAL B 472	60.026	43.794	40.355	1.00	73.16	C
ATOM	14604	CB	VAL B 472	61.104	43.046	39.528	1.00	72.34	C
ATOM	14606	CG1	VAL B 472	62.507	43.255	40.114	1.00	71.83	C
ATOM	14610	CG2	VAL B 472	60.758	41.552	39.414	1.00	71.41	C
ATOM	14614	C	VAL B 472	60.381	45.296	40.453	1.00	75.90	C
ATOM	14615	O	VAL B 472	60.546	45.970	39.432	1.00	73.44	O
ATOM	14616	N	VAL B 473	60.489	45.817	41.672	1.00	78.70	N
ATOM	14618	CA	VAL B 473	60.766	47.244	41.876	1.00	83.22	C
ATOM	14620	CB	VAL B 473	59.852	47.847	42.978	1.00	84.51	C
ATOM	14622	CG1	VAL B 473	59.914	49.380	42.954	1.00	86.13	C
ATOM	14626	CG2	VAL B 473	58.407	47.368	42.813	1.00	84.75	C
ATOM	14630	C	VAL B 473	62.234	47.518	42.254	1.00	84.85	C
ATOM	14631	O	VAL B 473	62.836	46.774	43.038	1.00	84.37	O

395/514

Figure 5

ATOM	14632	N	ASN	B	474	62.802	48.583	41.684	1.00	87.54	N
ATOM	14634	CA	ASN	B	474	64.121	49.091	42.095	1.00	89.57	C
ATOM	14636	CB	ASN	B	474	65.214	48.610	41.137	1.00	91.42	C
ATOM	14639	CG	ASN	B	474	65.423	47.102	41.210	1.00	94.19	C
ATOM	14640	OD1	ASN	B	474	64.608	46.326	40.703	1.00	94.88	O
ATOM	14641	ND2	ASN	B	474	66.502	46.680	41.859	1.00	95.18	N
ATOM	14644	C	ASN	B	474	64.127	50.615	42.214	1.00	88.47	C
ATOM	14645	O	ASN	B	474	64.435	51.333	41.254	1.00	83.30	O
ATOM	14646	N	GLY	B	475	63.737	51.081	43.402	1.00	89.74	N
ATOM	14648	CA	GLY	B	475	63.748	52.490	43.758	1.00	90.50	C
ATOM	14651	C	GLY	B	475	62.663	53.283	43.047	1.00	91.74	C
ATOM	14652	O	GLY	B	475	61.482	53.205	43.413	1.00	90.64	O
ATOM	14653	N	PHE	B	476	63.080	54.018	42.010	1.00	91.94	N
ATOM	14655	CA	PHE	B	476	62.236	54.982	41.285	1.00	89.81	C
ATOM	14657	CB	PHE	B	476	63.088	56.196	40.822	1.00	91.80	C
ATOM	14660	CG	PHE	B	476	63.626	57.090	41.950	1.00	94.77	C
ATOM	14661	CD1	PHE	B	476	64.499	58.147	41.630	1.00	95.71	C
ATOM	14663	CE1	PHE	B	476	65.008	58.989	42.622	1.00	94.74	C
ATOM	14665	CZ	PHE	B	476	64.645	58.784	43.958	1.00	94.68	C
ATOM	14667	CE2	PHE	B	476	63.777	57.740	44.297	1.00	92.90	C
ATOM	14669	CD2	PHE	B	476	63.270	56.900	43.299	1.00	94.20	C
ATOM	14671	C	PHE	B	476	61.539	54.385	40.040	1.00	84.51	C
ATOM	14672	O	PHE	B	476	60.744	55.072	39.386	1.00	84.09	O
ATOM	14673	N	ALA	B	477	61.860	53.137	39.694	1.00	77.54	N
ATOM	14675	CA	ALA	B	477	61.253	52.459	38.539	1.00	72.44	C
ATOM	14677	CB	ALA	B	477	62.228	52.436	37.341	1.00	70.79	C
ATOM	14681	C	ALA	B	477	60.800	51.037	38.907	1.00	68.26	C
ATOM	14682	O	ALA	B	477	60.968	50.593	40.054	1.00	67.52	O
ATOM	14683	N	SER	B	478	60.193	50.353	37.939	1.00	60.70	N
ATOM	14685	CA	SER	B	478	59.719	48.978	38.126	1.00	57.04	C
ATOM	14687	CB	SER	B	478	58.501	48.894	39.048	1.00	58.21	C
ATOM	14690	OG	SER	B	478	57.432	49.705	38.605	1.00	60.97	O
ATOM	14692	C	SER	B	478	59.391	48.352	36.790	1.00	52.88	C
ATOM	14693	O	SER	B	478	59.073	49.062	35.834	1.00	49.59	O
ATOM	14694	N	VAL	B	479	59.477	47.020	36.737	1.00	46.89	N
ATOM	14696	CA	VAL	B	479	59.535	46.285	35.471	1.00	44.49	C
ATOM	14698	CB	VAL	B	479	60.991	46.170	34.954	1.00	40.35	C
ATOM	14700	CG1	VAL	B	479	61.607	47.544	34.681	1.00	39.58	C
ATOM	14704	CG2	VAL	B	479	61.826	45.424	35.935	1.00	39.08	C
ATOM	14708	C	VAL	B	479	58.980	44.876	35.657	1.00	44.38	C
ATOM	14709	O	VAL	B	479	58.990	44.366	36.766	1.00	49.04	O
ATOM	14710	N	PRO	B	480	58.489	44.239	34.597	1.00	41.57	N
ATOM	14711	CA	PRO	B	480	57.885	42.912	34.751	1.00	42.61	C
ATOM	14713	CB	PRO	B	480	57.074	42.744	33.463	1.00	39.62	C
ATOM	14716	CG	PRO	B	480	57.833	43.543	32.453	1.00	39.43	C
ATOM	14719	CD	PRO	B	480	58.470	44.695	33.197	1.00	38.63	C
ATOM	14722	C	PRO	B	480	58.970	41.841	34.831	1.00	45.77	C
ATOM	14723	O	PRO	B	480	60.110	42.120	34.488	1.00	50.02	O
ATOM	14724	N	PRO	B	481	58.625	40.632	35.245	1.00	46.34	N
ATOM	14725	CA	PRO	B	481	59.593	39.542	35.225	1.00	47.12	C
ATOM	14727	CB	PRO	B	481	58.925	38.453	36.099	1.00	45.16	C
ATOM	14730	CG	PRO	B	481	57.480	38.684	35.941	1.00	46.23	C
ATOM	14733	CD	PRO	B	481	57.311	40.188	35.746	1.00	47.53	C
ATOM	14736	C	PRO	B	481	59.808	39.041	33.803	1.00	45.57	C
ATOM	14737	O	PRO	B	481	58.971	39.293	32.923	1.00	45.15	O
ATOM	14738	N	PHE	B	482	60.920	38.332	33.602	1.00	42.27	N
ATOM	14740	CA	PHE	B	482	61.213	37.693	32.341	1.00	39.00	C
ATOM	14742	CB	PHE	B	482	62.532	36.924	32.427	1.00	39.89	C
ATOM	14745	CG	PHE	B	482	62.852	36.160	31.177	1.00	40.74	C
ATOM	14746	CD1	PHE	B	482	62.617	34.797	31.101	1.00	37.74	C
ATOM	14748	CE1	PHE	B	482	62.875	34.111	29.942	1.00	41.00	C
ATOM	14750	CZ	PHE	B	482	63.382	34.782	28.825	1.00	40.62	C
ATOM	14752	CE2	PHE	B	482	63.615	36.132	28.884	1.00	40.63	C
ATOM	14754	CD2	PHE	B	482	63.347	36.822	30.054	1.00	40.80	C
ATOM	14756	C	PHE	B	482	60.085	36.739	31.962	1.00	39.47	C
ATOM	14757	O	PHE	B	482	59.512	36.062	32.817	1.00	44.71	O
ATOM	14758	N	TYR	B	483	59.751	36.695	30.681	1.00	37.43	N
ATOM	14760	CA	TYR	B	483	58.804	35.698	30.195	1.00	38.26	C
ATOM	14762	CB	TYR	B	483	57.359	36.052	30.576	1.00	37.96	C
ATOM	14765	CG	TYR	B	483	56.801	37.161	29.723	1.00	36.10	C
ATOM	14766	CD1	TYR	B	483	56.024	36.878	28.601	1.00	33.64	C
ATOM	14768	CE1	TYR	B	483	55.522	37.901	27.809	1.00	32.12	C
ATOM	14770	CZ	TYR	B	483	55.830	39.212	28.124	1.00	32.43	C
ATOM	14771	OH	TYR	B	483	55.353	40.242	27.327	1.00	35.93	O
ATOM	14773	CE2	TYR	B	483	56.619	39.502	29.228	1.00	28.64	C
ATOM	14775	CD2	TYR	B	483	57.092	38.494	30.012	1.00	26.13	C

396/514

Figure 5

ATOM	14777	C	TYR	B	483	58.921	35.589	28.691	1.00	38.77	C
ATOM	14778	O	TYR	B	483	59.486	36.473	28.044	1.00	43.13	O
ATOM	14779	N	GLN	B	484	58.368	34.503	28.162	1.00	39.23	N
ATOM	14781	CA	GLN	B	484	58.339	34.232	26.733	1.00	42.80	C
ATOM	14783	CB	GLN	B	484	59.247	33.060	26.360	1.00	45.49	C
ATOM	14786	CG	GLN	B	484	60.728	33.221	26.678	1.00	51.47	C
ATOM	14789	CD	GLN	B	484	61.505	31.901	26.506	1.00	54.57	C
ATOM	14790	OE1	GLN	B	484	61.058	30.842	26.988	1.00	54.51	O
ATOM	14791	NE2	GLN	B	484	62.651	31.967	25.828	1.00	47.10	N
ATOM	14794	C	GLN	B	484	56.938	33.850	26.311	1.00	41.81	C
ATOM	14795	O	GLN	B	484	56.116	33.456	27.138	1.00	43.85	O
ATOM	14796	N	LEU	B	485	56.692	33.945	25.007	1.00	44.20	N
ATOM	14798	CA	LEU	B	485	55.407	33.586	24.409	1.00	43.57	C
ATOM	14800	CB	LEU	B	485	54.394	34.691	24.675	1.00	42.60	C
ATOM	14803	CG	LEU	B	485	54.405	35.931	23.771	1.00	40.44	C
ATOM	14805	CD1	LEU	B	485	53.079	36.694	23.878	1.00	41.53	C
ATOM	14809	CD2	LEU	B	485	55.585	36.839	24.127	1.00	40.96	C
ATOM	14813	C	LEU	B	485	55.515	33.378	22.903	1.00	46.37	C
ATOM	14814	O	LEU	B	485	56.564	33.639	22.293	1.00	50.60	O
ATOM	14815	N	CYS	B	486	54.402	32.965	22.305	1.00	46.20	N
ATOM	14817	CA	CYS	B	486	54.303	32.803	20.861	1.00	46.00	C
ATOM	14819	CB	CYS	B	486	54.036	31.354	20.524	1.00	48.22	C
ATOM	14822	SG	CYS	B	486	55.149	30.221	21.337	1.00	55.68	S
ATOM	14823	C	CYS	B	486	53.177	33.636	20.269	1.00	44.86	C
ATOM	14824	O	CYS	B	486	52.058	33.669	20.777	1.00	41.38	O
ATOM	14825	N	PHE	B	487	53.493	34.281	19.161	1.00	43.43	N
ATOM	14827	CA	PHE	B	487	52.539	35.018	18.393	1.00	40.56	C
ATOM	14829	CB	PHE	B	487	53.233	36.267	17.873	1.00	39.13	C
ATOM	14832	CG	PHE	B	487	53.699	37.186	18.979	1.00	39.59	C
ATOM	14833	CD1	PHE	B	487	55.004	37.141	19.443	1.00	42.12	C
ATOM	14835	CE1	PHE	B	487	55.430	37.994	20.460	1.00	41.04	C
ATOM	14837	CZ	PHE	B	487	54.543	38.894	21.031	1.00	38.31	C
ATOM	14839	CE2	PHE	B	487	53.239	38.938	20.583	1.00	39.02	C
ATOM	14841	CD2	PHE	B	487	52.823	38.092	19.563	1.00	37.87	C
ATOM	14843	C	PHE	B	487	52.006	34.100	17.295	1.00	40.89	C
ATOM	14844	O	PHE	B	487	52.546	34.033	16.201	1.00	44.07	O
ATOM	14845	N	ILE	B	488	50.968	33.345	17.629	1.00	44.99	N
ATOM	14847	CA	ILE	B	488	50.336	32.413	16.690	1.00	48.17	C
ATOM	14849	CB	ILE	B	488	49.576	31.286	17.454	1.00	49.83	C
ATOM	14851	CG1	ILE	B	488	50.560	30.267	18.009	1.00	52.13	C
ATOM	14854	CD1	ILE	B	488	51.187	30.719	19.256	1.00	56.47	C
ATOM	14858	CG2	ILE	B	488	48.561	30.561	16.563	1.00	50.33	C
ATOM	14862	C	ILE	B	488	49.362	33.195	15.825	1.00	49.33	C
ATOM	14863	O	ILE	B	488	48.398	33.759	16.353	1.00	49.41	O
ATOM	14864	N	PRO	B	489	49.588	33.239	14.511	1.00	48.42	N
ATOM	14865	CA	PRO	B	489	48.637	33.879	13.591	1.00	47.81	C
ATOM	14867	CB	PRO	B	489	49.207	33.526	12.223	1.00	45.70	C
ATOM	14870	CG	PRO	B	489	50.650	33.421	12.468	1.00	46.66	C
ATOM	14873	CD	PRO	B	489	50.765	32.726	13.792	1.00	47.29	C
ATOM	14876	C	PRO	B	489	47.190	33.383	13.723	1.00	49.60	C
ATOM	14877	O	PRO	B	489	46.932	32.269	14.193	1.00	53.68	O
ATOM	14878	N	VAL	B	490	46.253	34.220	13.311	1.00	50.54	N
ATOM	14880	CA	VAL	B	490	44.839	33.910	13.460	1.00	53.88	C
ATOM	14882	CB	VAL	B	490	44.021	35.189	13.822	1.00	56.65	C
ATOM	14884	CG1	VAL	B	490	44.602	35.889	15.071	1.00	56.58	C
ATOM	14888	CG2	VAL	B	490	43.943	36.172	12.639	1.00	55.77	C
ATOM	14892	C	VAL	B	490	44.294	33.243	12.183	1.00	56.50	C
ATOM	14893	O	VAL	B	490	44.745	33.574	11.080	1.00	55.59	O
ATOM	14894	OXT	VAL	B	490	43.413	32.361	12.217	1.00	58.51	O
ATOM	14895	FE1	HEM	B	501	56.685	60.810	29.745	1.00	32.88	FE
ATOM	14896	N5	HEM	B	501	57.469	62.064	29.648	1.00	29.60	N
ATOM	14897	C21	HEM	B	501	57.844	62.983	30.635	1.00	19.44	C
ATOM	14898	C20	HEM	B	501	58.574	64.187	30.139	1.00	19.96	C
ATOM	14899	C39	HEM	B	501	59.127	65.395	30.839	1.00	29.43	C
ATOM	14902	C40	HEM	B	501	58.129	66.515	31.050	1.00	40.72	C
ATOM	14904	C41	HEM	B	501	58.553	67.622	31.716	1.00	45.47	C
ATOM	14905	O42	HEM	B	501	58.025	68.709	31.535	1.00	42.97	O
ATOM	14906	O43	HEM	B	501	59.495	67.550	32.494	1.00	42.16	O
ATOM	14907	C18	HEM	B	501	57.978	62.643	28.502	1.00	19.94	C
ATOM	14908	C19	HEM	B	501	58.700	63.932	28.711	1.00	21.83	C
ATOM	14909	C38	HEM	B	501	59.349	64.823	27.697	1.00	22.05	C
ATOM	14910	C25	HEM	B	501	57.943	62.140	27.138	1.00	10.30	C
ATOM	14912	C17	HEM	B	501	57.338	60.904	26.740	1.00	15.54	C
ATOM	14913	C16	HEM	B	501	57.266	60.421	25.348	1.00	15.15	C
ATOM	14914	C36	HEM	B	501	57.822	60.986	24.097	1.00	19.75	C
ATOM	14916	C37	HEM	B	501	57.685	62.447	23.830	1.00	21.61	C

397/514

Figure 5

ATOM	14917	C15	HEM	B	501	56.549	59.148	25.455	1.00	13.87	C
ATOM	14918	C35	HEM	B	501	56.229	58.175	24.374	1.00	20.80	C
ATOM	14919	C14	HEM	B	501	56.317	59.059	26.935	1.00	20.60	C
ATOM	14920	N4	HEM	B	501	56.781	60.073	27.663	1.00	16.80	N
ATOM	14922	C24	HEM	B	501	55.594	57.974	27.581	1.00	21.69	C
ATOM	14924	C13	HEM	B	501	55.303	57.824	29.010	1.00	16.63	C
ATOM	14925	C12	HEM	B	501	54.559	56.637	29.485	1.00	17.32	C
ATOM	14926	C33	HEM	B	501	54.083	55.524	28.638	1.00	18.16	C
ATOM	14928	C34	HEM	B	501	53.726	54.224	29.268	1.00	20.16	C
ATOM	14929	C11	HEM	B	501	54.367	56.811	30.922	1.00	18.50	C
ATOM	14930	C32	HEM	B	501	53.684	55.894	31.906	1.00	20.53	C
ATOM	14931	C10	HEM	B	501	55.053	58.124	31.105	1.00	18.61	C
ATOM	14932	N3	HEM	B	501	55.591	58.704	29.980	1.00	14.65	N
ATOM	14934	C23	HEM	B	501	55.120	58.709	32.455	1.00	17.86	C
ATOM	14936	C9	HEM	B	501	55.750	59.978	32.838	1.00	21.95	C
ATOM	14937	N2	HEM	B	501	56.374	60.791	31.957	1.00	18.63	N
ATOM	14939	C6	HEM	B	501	56.836	61.829	32.676	1.00	15.05	C
ATOM	14940	C22	HEM	B	501	57.536	62.926	32.056	1.00	16.56	C
ATOM	14942	C8	HEM	B	501	55.758	60.477	34.234	1.00	19.04	C
ATOM	14943	C26	HEM	B	501	55.231	59.858	35.465	1.00	21.81	C
ATOM	14944	C7	HEM	B	501	56.512	61.736	34.106	1.00	20.49	C
ATOM	14945	C27	HEM	B	501	56.796	62.672	35.206	1.00	27.56	C
ATOM	14947	C28	HEM	B	501	56.286	64.081	34.968	1.00	32.06	C
ATOM	14950	C29	HEM	B	501	56.282	64.848	36.282	1.00	35.26	C
ATOM	14951	O30	HEM	B	501	57.200	65.605	36.553	1.00	38.75	O
ATOM	14952	O31	HEM	B	501	55.376	64.722	37.095	1.00	35.97	O
ATOM	14953	O	HOH	W2001		22.332	66.101	17.605	1.00	37.45	O
ATOM	14956	O	HOH	W2002		39.184	67.864	0.001	0.50	43.93	O
ATOM	14959	O	HOH	W2003		22.056	87.604	21.635	1.00	34.04	O
ATOM	14962	O	HOH	W2004		27.500	67.000	-0.128	1.00	40.58	O
ATOM	14965	O	HOH	W2005		1.104	69.686	20.708	1.00	35.67	O
ATOM	14968	O	HOH	W2006		8.566	57.157	21.230	1.00	35.27	O
ATOM	14971	O	HOH	W2007		40.398	83.015	15.513	1.00	39.71	O
ATOM	14974	O	HOH	W2008		37.456	61.356	17.014	1.00	44.00	O
ATOM	14977	O	HOH	W2009		24.050	64.615	37.173	1.00	34.60	O
ATOM	14980	O	HOH	W2010		12.129	87.344	-2.599	1.00	45.59	O
ATOM	14983	O	HOH	W2011		37.168	87.666	18.527	1.00	39.28	O
ATOM	14986	O	HOH	W2012		14.590	74.553	-1.456	1.00	39.13	O
ATOM	14989	O	HOH	W2013		19.193	83.690	16.494	1.00	43.76	O
ATOM	14992	O	HOH	W2014		27.712	76.184	2.633	1.00	34.87	O
ATOM	14995	O	HOH	W2015		43.102	78.613	11.891	1.00	40.26	O
ATOM	14998	O	HOH	W2016		3.853	72.508	29.609	1.00	42.76	O
ATOM	15001	O	HOH	W2017		-5.059	76.270	32.784	1.00	48.36	O
ATOM	15004	O	HOH	W2018		-5.363	57.919	31.417	1.00	55.31	O
ATOM	15007	O	HOH	W2019		10.301	91.578	1.728	1.00	44.91	O
ATOM	15010	O	HOH	W2020		28.270	65.046	40.231	1.00	50.04	O
ATOM	15013	O	HOH	W2021		7.163	85.912	-3.043	1.00	45.72	O
ATOM	15016	O	HOH	W2022		14.287	61.919	1.304	1.00	56.90	O
ATOM	15019	O	HOH	W2023		9.027	50.947	31.814	1.00	47.11	O
ATOM	15022	O	HOH	W2024		12.374	75.274	19.679	1.00	26.99	O
ATOM	15025	O	HOH	W2025		5.893	79.717	49.307	1.00	47.04	O
ATOM	15028	O	HOH	W2026		18.461	71.665	38.701	1.00	50.71	O
ATOM	15031	O	HOH	W2027		24.404	67.509	39.056	1.00	30.26	O
ATOM	15034	O	HOH	W2028		44.677	79.411	24.432	1.00	61.22	O
ATOM	15037	O	HOH	W2029		33.788	63.777	15.135	1.00	39.88	O
ATOM	15040	O	HOH	W2030		-3.551	63.803	23.749	1.00	43.84	O
ATOM	15043	O	HOH	W2031		33.399	80.082	29.766	1.00	39.25	O
ATOM	15046	O	HOH	W2032		15.610	83.594	21.904	1.00	40.99	O
ATOM	15049	O	HOH	W2033		27.914	57.685	35.536	1.00	50.29	O
ATOM	15052	O	HOH	W2034		46.028	66.475	18.676	1.00	35.21	O
ATOM	15055	O	HOH	W2035		40.340	81.794	8.593	1.00	39.78	O
ATOM	15058	O	HOH	W2036		31.072	61.378	36.156	1.00	41.52	O
ATOM	15061	O	HOH	W2037		27.037	71.946	38.741	1.00	32.63	O
ATOM	15064	O	HOH	W2038		20.274	60.935	25.175	1.00	47.32	O
ATOM	15067	O	HOH	W2039		19.089	94.703	16.262	1.00	51.56	O
ATOM	15070	O	HOH	W2040		4.851	79.290	18.114	1.00	33.85	O
ATOM	15073	O	HOH	W2041		13.188	63.252	4.505	1.00	33.45	O
ATOM	15076	O	HOH	W2042		35.356	61.598	15.387	1.00	28.04	O
ATOM	15079	O	HOH	W2043		37.145	84.259	13.711	1.00	43.51	O
ATOM	15082	O	HOH	W2044		24.256	75.099	36.311	1.00	53.60	O
ATOM	15085	O	HOH	W2045		15.474	61.460	18.010	1.00	42.53	O
ATOM	15088	O	HOH	W2046		13.422	73.606	30.124	1.00	25.06	O
ATOM	15091	O	HOH	W2047		21.317	73.327	25.139	1.00	24.80	O
ATOM	15094	O	HOH	W2048		21.423	73.465	22.667	1.00	27.99	O
ATOM	15097	O	HOH	W2049		12.463	72.061	21.045	1.00	46.29	O
ATOM	15100	O	HOH	W2050		41.339	74.411	22.961	1.00	43.80	O

398/514

Figure 5

ATOM	15103	O	HOH	W2051	20.333	64.581	24.405	1.00	29.67	O
ATOM	15106	O	HOH	W2052	18.922	71.640	28.786	1.00	29.70	O
ATOM	15109	O	HOH	W2053	41.100	67.380	17.930	1.00	46.94	O
ATOM	15112	O	HOH	W2054	37.010	72.349	-0.985	1.00	36.47	O
ATOM	15115	O	HOH	W2055	48.382	64.875	19.930	1.00	44.49	O
ATOM	15118	O	HOH	W2056	20.142	61.268	40.826	1.00	34.58	O
ATOM	15121	O	HOH	W2057	41.389	67.726	14.578	1.00	33.80	O
ATOM	15124	O	HOH	W2058	22.803	89.331	19.487	1.00	40.93	O
ATOM	15127	O	HOH	W2059	10.815	57.707	28.756	1.00	46.80	O
ATOM	15130	O	HOH	W2060	23.042	61.007	39.872	1.00	35.23	O
ATOM	15133	O	HOH	W2061	34.488	65.660	30.544	1.00	36.77	O
ATOM	15136	O	HOH	W2062	23.207	64.875	15.270	1.00	45.85	O
ATOM	15139	O	HOH	W2063	-4.909	80.429	41.453	1.00	34.91	O
ATOM	15142	O	HOH	W2064	18.845	88.815	20.249	1.00	30.91	O
ATOM	15145	O	HOH	W2065	40.746	73.315	-0.984	1.00	42.65	O
ATOM	15148	O	HOH	W2066	32.566	60.101	16.354	1.00	47.53	O
ATOM	15151	O	HOH	W2067	6.791	88.586	-1.220	1.00	45.57	O
ATOM	15154	O	HOH	W2068	16.173	62.268	15.557	1.00	43.22	O
ATOM	15157	O	HOH	W2069	29.985	90.236	5.363	1.00	46.25	O
ATOM	15160	O	HOH	W2070	32.972	63.966	27.350	1.00	43.89	O
ATOM	15163	O	HOH	W2071	40.246	81.211	23.013	1.00	44.68	O
ATOM	15166	O	HOH	W2072	43.323	71.275	20.342	1.00	48.66	O
ATOM	15169	O	HOH	W2073	22.509	64.354	19.629	1.00	29.76	O
ATOM	15172	O	HOH	W2074	19.026	90.549	14.385	1.00	35.87	O
ATOM	15175	O	HOH	W2075	3.211	82.866	6.576	1.00	45.41	O
ATOM	15178	O	HOH	W2076	38.313	79.194	7.522	1.00	42.45	O
ATOM	15181	O	HOH	W2077	32.604	82.082	28.159	1.00	48.32	O
ATOM	15184	O	HOH	W2078	46.352	68.326	16.051	1.00	48.79	O
ATOM	15187	O	HOH	W2079	42.043	66.017	3.726	1.00	48.82	O
ATOM	15190	O	HOH	W2080	-5.040	76.592	-1.104	1.00	47.04	O
ATOM	15193	O	HOH	W2081	0.340	54.413	-2.819	1.00	48.54	O
ATOM	15196	O	HOH	W2082	18.285	91.284	18.953	1.00	45.66	O
ATOM	15199	O	HOH	W2083	21.062	65.582	42.101	1.00	45.14	O
ATOM	15202	O	HOH	W2084	36.153	63.328	36.972	1.00	55.25	O
ATOM	15205	O	HOH	W2085	57.810	72.353	58.736	1.00	39.48	O
ATOM	15208	O	HOH	W2086	53.060	55.100	35.460	1.00	24.11	O
ATOM	15211	O	HOH	W2087	60.174	59.468	31.827	1.00	30.97	O
ATOM	15214	O	HOH	W2088	52.449	52.777	32.088	1.00	33.67	O
ATOM	15217	O	HOH	W2089	38.732	58.096	26.834	1.00	40.92	O
ATOM	15220	O	HOH	W2090	48.140	60.129	55.097	1.00	57.45	O
ATOM	15223	O	HOH	W2091	46.578	67.109	34.965	1.00	34.20	O
ATOM	15226	O	HOH	W2092	44.346	44.119	46.365	1.00	36.97	O
ATOM	15229	O	HOH	W2093	39.038	57.746	22.032	1.00	35.60	O
ATOM	15232	O	HOH	W2094	77.146	70.278	21.222	1.00	47.23	O
ATOM	15235	O	HOH	W2095	35.084	47.566	10.023	1.00	49.92	O
ATOM	15238	O	HOH	W2096	69.829	66.355	27.368	1.00	52.23	O
ATOM	15241	O	HOH	W2097	51.862	41.653	8.303	1.00	48.32	O
ATOM	15244	O	HOH	W2098	53.346	73.731	31.643	1.00	36.70	O
ATOM	15247	O	HOH	W2099	78.009	62.329	50.788	1.00	42.03	O
ATOM	15250	O	HOH	W2100	37.648	57.703	45.503	1.00	44.52	O
ATOM	15253	O	HOH	W2101	43.050	63.744	37.293	1.00	31.66	O
ATOM	15256	O	HOH	W2102	46.289	59.623	22.260	1.00	31.71	O
ATOM	15259	O	HOH	W2103	51.306	65.283	57.193	1.00	51.70	O
ATOM	15262	O	HOH	W2104	35.382	53.095	14.452	1.00	49.66	O
ATOM	15265	O	HOH	W2105	59.860	45.727	25.893	1.00	37.84	O
ATOM	15268	O	HOH	W2106	75.339	65.933	42.709	1.00	48.86	O
ATOM	15271	O	HOH	W2107	64.260	35.932	22.077	1.00	46.02	O
ATOM	15274	O	HOH	W2108	45.806	64.411	30.466	1.00	36.58	O
ATOM	15277	O	HOH	W2109	47.258	55.781	8.498	1.00	43.88	O
ATOM	15280	O	HOH	W2110	43.704	55.027	9.399	1.00	48.17	O
ATOM	15283	O	HOH	W2111	50.180	51.852	7.951	1.00	49.89	O
ATOM	15286	O	HOH	W2112	53.383	75.850	2.941	1.00	45.69	O
ATOM	15289	O	HOH	W2113	58.163	78.128	22.903	1.00	40.57	O
ATOM	15292	O	HOH	W2114	41.755	56.513	49.754	1.00	38.72	O
ATOM	15295	O	HOH	W2115	50.371	65.017	25.354	1.00	31.31	O
ATOM	15298	O	HOH	W2116	37.104	54.141	37.044	1.00	35.00	O
ATOM	15301	O	HOH	W2117	73.513	64.709	51.194	1.00	47.01	O
ATOM	15304	O	HOH	W2118	46.151	55.467	48.645	1.00	38.98	O
ATOM	15307	O	HOH	W2119	71.185	50.063	6.674	1.00	40.06	O
ATOM	15310	O	HOH	W2120	33.768	57.756	31.272	1.00	30.61	O
ATOM	15313	O	HOH	W2121	66.548	62.932	39.588	1.00	46.10	O
ATOM	15316	O	HOH	W2122	67.555	55.467	27.913	1.00	38.67	O
ATOM	15319	O	HOH	W2123	43.974	53.957	49.363	1.00	29.29	O
ATOM	15322	O	HOH	W2124	53.199	55.077	37.993	1.00	39.19	O
ATOM	15325	O	HOH	W2125	52.026	52.759	34.670	1.00	30.35	O
ATOM	15328	O	HOH	W2126	43.912	61.853	49.587	1.00	29.39	O

399/514

Figure 5

ATOM	15331	O	HOH	W2127	48.276	60.966	34.185	1.00	40.69	0
ATOM	15334	O	HOH	W2128	68.555	63.944	8.402	1.00	40.91	0
ATOM	15337	O	HOH	W2129	31.906	53.732	26.215	1.00	43.51	0
ATOM	15340	O	HOH	W2130	44.914	60.927	12.475	1.00	33.55	0
ATOM	15343	O	HOH	W2131	73.105	55.966	15.979	1.00	32.51	0
ATOM	15346	O	HOH	W2132	67.010	44.372	14.800	1.00	47.78	0
ATOM	15349	O	HOH	W2133	56.325	34.032	17.981	1.00	38.49	0
ATOM	15352	O	HOH	W2134	53.080	68.858	37.482	1.00	34.76	0
ATOM	15355	O	HOH	W2135	64.278	40.124	23.122	1.00	37.93	0
ATOM	15358	O	HOH	W2136	57.487	54.923	12.576	1.00	50.67	0
ATOM	15361	O	HOH	W2137	70.632	47.533	19.435	1.00	39.84	0
ATOM	15364	O	HOH	W2138	65.707	40.223	27.196	1.00	47.47	0
ATOM	15367	O	HOH	W2139	54.513	66.538	0.742	1.00	43.57	0
ATOM	15370	O	HOH	W2140	42.270	34.506	24.787	1.00	50.88	0
ATOM	15373	O	HOH	W2141	37.570	62.837	45.268	1.00	58.00	0
ATOM	15376	O	HOH	W2142	46.199	64.053	35.617	1.00	52.04	0
ATOM	15379	O	HOH	W2143	51.487	63.405	20.558	1.00	50.11	0
ATOM	15382	O	HOH	W2144	69.630	67.238	30.880	1.00	44.69	0
ATOM	15385	O	HOH	W2145	59.208	44.926	9.970	1.00	39.38	0
ATOM	15388	O	HOH	W2146	43.290	34.923	22.085	1.00	49.93	0
ATOM	15391	O	HOH	W2147	37.940	57.210	19.756	1.00	37.00	0

Figure 6

Table 11

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1015.1		Citrate-HCl	5.6			5-10%	PEG 4000			10% 5%	Iso- propanol
1015.1		HEPES	7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000				
1015.1		MES	6.5	.2	Ammonium Sulphate	30%	PEGME 5000				
1015.1		MES	6.5	.05	Cesium Chloride	30%	Jeffamine M600				
1015.1		Na HEPES	7.5	.2	Magnesium Chloride Hexahydrate	30%	PEG 400				
1015.0.1-0.2		Sodium Cacodylate	6.6	-		17.5-20%	PEG 3350				
1015.1		Tris	8.5			20%	PEG 300			5%	EM Glycerol PEG 8000
1015.1		Tris-HCl	7.0-7.6	0.1-0.2	Calcium Acetate	15-20%	PEG 3000				
1015.0.05- 0.15		Tris-HCl	7			10-20%	Ethanol				
1015.1		Tris-HCl	7			20%	MPEG 2000				
1015.1		Tri-Sodium Citrate Dihydrate	5.6	.1	Ferric Chloride	10%	Jeffamine M600				
1015.0.025- 0.1		Tri-Sodium Citrate Dihydrate	5.0-5.8	0.005-0.010	Iron Chloride	1.25-10%	Jeffamine M600				
1015				.1 .2	Calcium Chloride	20-25%	PEG 3350				
1015				0.05 - 0.35	K ₂ HPO ₄	3.75-22.5%	PEG 3350				
1015				0.1-0.2	K ₂ HPO ₄	10-20%	PEG 3350	0-10%	glycerol	0-15%	PEG 400

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1015				0.03-0.28	K ₂ HPO ₄					
1015						5-30%	PEG 3350			
1072	0.05-0.2	HEPES	7.5	0.1-0.35	Sodium Chloride	20-35%	PEG 400			
1072.1		HEPES	7.5	0.15-0.2	Sodium Chloride	15% 20%	PEG 3000			
1072.1		Sodium Cacodylate	6			5%	PEG 4000			
1072.1		Tris	7	0.1-0.25	Calcium Acetate	10-25%	PEG 3000			
1072.1		Tris	8			10% 15% 5%	PEG 4000			
1072.1		Tris-HCl	7-7.6	.1 .2	Calcium Acetate	15-20%	PEG 3000			
1072.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol		10%	PEG 4000
1072				.2	Na ₂ HPO ₄	20%	PEG 3350			
1072				0.1-0.3	tri-Potassium citrate	15-25%	PEG 3350			
1078.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol		10%	PEG 4000
1081.1		Acetate	4.5	.2	Calcium Acetate	30%	PEG 400			
1081.1		CHES	9.5			10% 30%	PEG 3000			
1081	0.05-0.15	HEPES	7.0-7.8	0.1-0.3	Sodium Chloride	5-15%	Isopropanol			
1081.1		Imidazole	8	.2	Magnesium Chloride	35%	MPD			
1081.1		Imidazole	8			10%	2-propanol			
1081.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000			
1081.1		Sodium Cacodylate	6.5	.2	Magnesium Acetate	10-20+G64%	PEG 8000			
1081	0.05-0.2	Tris	7.4	.2	Calcium Acetate	15%	PEG 3000			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add MAdditive
1081	0.1-0.2	Tris	7.2	.2	Calcium Acetate	15%	PEG 3000			
1081.1		Tris	7	0.1-0.25	Calcium Acetate	10-25%	PEG 3000			
1081.1		Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000			
1081	0.05-0.2	Tris	7			7.5-20%	Ethanol			
1081.1		Tris	8.5			10%	2-propanol			
1081.1		Tris-HCl	7	.1 .2	Calcium Acetate	15-20%	PEG 3000			
1081.1		Tris-HCl	7.2	.1 .2	Calcium Acetate	15-20%	PEG 3000			
1081.1		Tris-HCl	7.4	.1 .2	Calcium Acetate	15-20%	PEG 3000			
1081.1		Tris-HCl	7.6	.1 .2	Calcium Acetate	15-20%	PEG 3000			
1081						0.1-0.2 M	Magnesium Formate			
1082.1		CAPS	10.5			30%	PEG 400			
1082.1		Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol			
1082	0.05-0.15	Citrate-citric	5.2-6.0	0.1-0.25	Lithium Sulphate	5-15%	Ethanol			
1082	0.05-0.15	HEPES	7.2-7.6	0.1-0.25	Sodium Chloride	5-15%	2-propanol			
1082	0.05-0.20	HEPES	7.5	0.1-0.35	Sodium Chloride	20-35%	PEG 400			
1082.1		HEPES	7.2	.2	Sodium Chloride	10%	Iso-Propanol			
1082.1		Imidazole	8			10%	2-propanol			
1082	0.05-0.15	K Na Phosphate	6.2	.1 .2	Sodium Chloride	10-20%	PEG 8000			
1082.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000			
1082.1		Sodium Cacodylate	6.5	.2	Magnesium Acetate	10-20%	PEG 8000			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1082	1	Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000				
1082	0.05-0.20	Tris	7			7.5-20%	Ethanol				
1082	1	Tris	8.5			10%	2-propanol				
1082	1	Tris				7.5-20%	Ethanol				
1082	1	Tris	8.5			20%	PEG 1000				
1082				.2	Ammonium Acetate	20%	PEG 3350				
1082				.1 .2	Ammonium Sulphate	15-25%	PEG 3350				
1082				.1 .2	Calcium Chloride	20-25%	PEG 3350				
1082				.2	di-Ammonium hydrogen citrate	20%	PEG 3350				
1082				.2	Na2HPO4	20%	PEG 3350				
1082				.05 .1 .2 .25	Magnesium formate	5-20%	PEG 3350				
1082				.05	Mono-potassium Dihydrogen Phosphate	10%	PEG 8000				
1082				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350				
1085	0.1	Sodium Acetate Trihydrate	4.6	0.02	Calcium Chloride	15%	2 Methyl 2,4 Pentanediol				
1085	1	Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol			10%	PEG 4000
1097	1	Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol				
1097	0.05-	HEPES	7.5	.1 .2	Sodium Chloride	5-15%	2-propanol				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
	0.15									
1097	0.05-0.2	HEPES	7.5	.1 .2 .25 .3 .35	Sodium Chloride	20-35%	PEG 400			
1097	.1	HEPES	7.5			5-10%	Iso-Propanol		10	PEG 4000
1097	.1	HEPES	7.5			20%	PEG 8000			
1097	0.05-0.15	K Na Phosphate	6.2	.1 .2	Sodium Chloride	10-20%	PEG 8000			
1097	.1	MES	6	.2	Calcium Acetate	20%	PEG 8000			
1097	.1	Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000			
1097	0.1-0.15	Phosphate-Citrate	4.2	.1 .2 .3	Sodium Chloride	10-15%	PEG 3000			
1097	0.05-0.15	Tris	7			7.5-15%	Ethanol			
1097	0.05-0.2	Tris	7			15-30%	MPEG 2000			
1097	.1	Tris-HCl	7-7.6	.1 .2	Calcium Acetate	15-20%	PEG 3000			
1097	.1	Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol		10%	PEG 4000
1097				.2	Ammonium Acetate	20%	PEG 3350			
1097				.2	Ammonium dihydrogen phosphate	20%	PEG 3350			
1097				.1 .2	Ammonium Sulphate	15-25%	PEG 3350			
1097				.1 .15 .2 .25	Calcium Acetate	15-25%	PEG 3350			
1097				.1 .2	Calcium Chloride	20% 25.000	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1097				.2	di-Ammonium hydrogen citrate	20%	PEG 3350				
1097				0.05 -0.35	K ₂ HPO ₄	2.5% - 25%	PEG 3350				
1097				.2	Di-Sodium Tartrate	20%	PEG 3350				
1097				.2	Lithium Sulphate	20% 25%	PEG 3350				
1097				.2	Magnesium Chloride	20%	PEG 3350				
1097				.2	Magnesium nitrate	20%	PEG 3350				
1097				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350				
1097				.2	Sodium iodide	20%	PEG 3350				
1097				.1 .2 .25 .3	tri-Potassium citrate	15,000 20% 25%	PEG 3350				
1100.1		CHES	9.5			15%	Ethanol				
1100.1		HEPES	7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000				
1100.1		HEPES	7.5			20%	PEG 8000				
1100.1		Imidazole	8			10%	2-propanol				
1100.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000				
1100.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000				
1100.1		Sodium Citrate	5.5			20%	PEG 3000				
1100.1		Tris	7	.1 .15 .2 .25	Calcium Acetate	10% 15% 20% 25%	PEG 3000				
1100.05-0.2		Tris	7			10% 15% 20% 7.5%	Ethanol				
1100.1		Tris-HCl	7-7.6	.1 .2	Calcium Acetate	15% 20%	PEG 3000				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1100	.1	Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol			10%	PEG 4000
1100				.2	Ammonium chloride	20%	PEG 3350				
1100				.2	Ammonium fluoride	20%	PEG 3350				
1100				.2	Ammonium formate	20%	PEG 3350				
1100				.2	Ammonium Iodide	20%	PEG 3350				
1100				.1 .2	Ammonium Sulphate	15-25%	PEG 3350				
1100				0.05-0.35	K ₂ HPO ₄	5-25%	PEG 3350				
1100				.2	Di-Sodium Tartrate	20%	PEG 3350				
1100				.2	Lithium nitrate	20%	PEG 3350				
1100				.2	Lithium Sulphate	20% 25%	PEG 3350				
1100				.1 .2 .3 .4	Magnesium Acetate	10 15 20% 25	PEG 3350				
1100				.1 .2 .3	Potassium sodium tartrate	15% 20% 25%	PEG 3350				
1100				.2	Potassium sulphate	20%	PEG 3350				
1100				.1 .2 .3 .4	Sodium Chloride	15% 20%	PEG 3350				
1100				.2	Sodium fluoride	20%	PEG 3350				
1100				.2	Sodium formate	20%	PEG 3350				
1100				.1 .2 .3	Sodium sulphate	15% 20% 25%	PEG 3350				
1100				.2	tri-Lithium citrate	20%	PEG 3350				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add	MAdditive
1100				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350				
1101.1		Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso- Propanol			10%	PEG 4000
1101				.2	Ammonium formate	20%	PEG 3350				
1101				.1 .15 .2 .3 .5	Sodium Acetate	15% 20% 25% 30%	PEG 3350				
1101				.2	Sodium Formate	20%	PEG 3350				
1102.1		Imidazole	8	.2	Calcium Acetate	20%	PEG 1000				
1115.1		HEPES	7.5			10% 5%	Iso- Propanol			10	PEG 4000
1115.1		Tris-HCl	7.2- 7.6	.1 .2	Calcium Acetate	15-20%	PEG 3000				
1115.1		Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000				
1115.1		Tris-HCl	8.5			4%	PEG 8000				
1115.1		Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso- Propanol			10%	PEG 4000
1115				.2	Ammonium Acetate	20%	PEG 3350				
1115				.2	Ammonium chloride	20%	PEG 3350				
1115				.2	Ammonium formate	20%	PEG 3350				
1115				0.1-0.25	Calcium Acetate	15-25%	PEG 3350				
1115				0.05 - 0.35	K2HPO4	10-25%	PEG 3350				
1115				0.03 - 0.28	K2HPO4						

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1115				.1 .2 .3 .4	Magnesium Acetate	10-25%	PEG 3350			
1115				.05 .1 .2 .25	Magnesium formate	5-15%	PEG 3350			
1115				.2	Magnesium nitrate	20%	PEG 3350			
1115				.2 .25	Potassium acetate	20-25%	PEG 3350			
1115				.2	Potassium sulphate	20%	PEG 3350			
1115				.2	Sodium fluoride	20%	PEG 3350			
1115				.2		5-30%	PEG 3350			
1116.1		Acetate	4.5	.2	Zinc Acetate	20%	PEG 1000			
1116.1		CAPS	10.5			30%	PEG 400			
1116.0.075-0.2		CHES	9.5			20-25%	PEG 400			
1116.1		HEPES	7.5	.2	Magnesium Chloride	15%	Ethanol			
1116.0.05-0.2		HEPES	7.5	.1-0.35	Sodium Chloride	5-15%	2-propanol			0-10% PEG 4000
1116.0.05-0.2		HEPES	7.5	.1 .2 .25 .3 .35	Sodium Chloride	20-35%	PEG 400			
1116.1		Imidazole	8	.2	Calcium Acetate	10%	PEG 8000			
1116.1		Imidazole	8	.2	Magnesium Chloride	15%	PEG 4000			
1116.0.05-0.15		K Na Phosphate	6.2	.1 .2	Sodium Chloride	10-20%	PEG 8000			
1116.1		MES	6	.2	Calcium Acetate	20%	PEG 8000			
1116.1		Phosphate-Citrate	4.2	.2	Lithium Sulphate	10%	2-propanol			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Add M Additive
1116.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000		
1116.1-0.15		Phosphate-Citrate	4.2	.1 .2 .3	Sodium Chloride	10-15%	PEG 3000		
1116.1		Sodium Cacodylate	6.5	.2	Magnesium Acetate	10-20%	PEG 8000		
1116.1		Tris	7	.1 .15 .2 .25	Calcium Acetate	10-25%	PEG 3000		
1116.1		Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000		
1116.0.05-0.2		Tris	7			7.5-15%	Ethanol		
1116.0.05-0.2		Tris	7			15-30%	MPEG 2000		
1116.1		Tris	8.5			20%	PEG 1000		
1116.1		Tris-HCl	7.0-7.6	.1 .2	Calcium Acetate	15-20%	PEG 3000		
1116.1		Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000		
1116.1		Tris-HCl	8.5			4%	PEG 8000		
1116.1		Tri-Sodium Citrate Dihydrate	5.6	.2	Ammonium Acetate	15-30%	PEG 4000		
1116.1		Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol	10%	PEG 4000
1116				.2	Ammonium Acetate	20%	PEG 3350		
1116				.2	Ammonium dihydrogen phosphate	20%	PEG 3350		
1116				.2	Ammonium nitrate	20%	PEG 3350		
1116				.1 .15 .2	Calcium Acetate	15-25%	PEG 3350		

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1116				.25							
1116				.1 .2	Calcium Chloride	20-25%	PEG 3350				
1116				.2	Di-Ammonium Tartrate	20%	PEG 3350				
1116				.2	Na ₂ HPO ₄	20%	PEG 3350				
1116				.2	Di-Sodium Tartrate	20%	PEG 3350				
1116				.2	Lithium nitrate	20%	PEG 3350				
1116				.2	Magnesium Chloride	20%	PEG 3350				
1116				.2	Potassium iodide	20%	PEG 3350				
1116				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350				
1116				.2	Potassium sulphate	20%	PEG 3350				
1116				.1 .2 .3	Sodium sulphate	15-25%	PEG 3350				
1116				.2	Sodium thiocyanate	20%	PEG 3350				
1116				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350				
1116						0.1-0.2 M	Magnesium Formate				
1116						0.2	Potassium Sodium Tartrate Dihydrate				
1117.1		HEPES	7.5	.2	Magnesium Chloride	15%	Ethanol				
1117.0.05-0.15		HEPES	7.5	.1 .2	Sodium Chloride	5-15%	2-propanol				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1117.1		HEPES	7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000				
1117.1		HEPES	7.5			10% 5%	Iso-Propanol			10	PEG 4000
1117.1		Imidazole	8			10%	2-propanol				
1117.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000				
1117.1		MES	6	.2	Calcium Acetate	20%	PEG 8000				
1117.1		Phosphate-Citrate	4.2	.2	Lithium Sulphate	10%	2-propanol				
1117.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000				
1117.1		Sodium Citrate	5.5			20%	PEG 3000				
1117.1		Tris	7	.1 .15 .2	Calcium Acetate	10-25%	PEG 3000				
1117.1		Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000				
1117.1		Tris	8.2	.1	Sodium Acetate	15%	PEG 4000				
1117.1		Tris	8.4	.05 .1 .15	Sodium Acetate	5-15%	PEG 4000				
1117.1		Tris	9	.1	Sodium Acetate	15%	PEG 4000				
1117.0.05-0.2		Tris	7			7.5-20%	Ethanol				
1117.0.05-0.2		Tris	7			15-30%	MPEG 2000				
1117.1		Tris	8.5			10%	2-propanol				
1117.1		Tris	8.5			20%	PEG 1000				
1117.1		Tris	8.4			15%	PEG 4000				
1117.1		Tris-HCl	7.0-7.6	0.1-0.2	Calcium Acetate	15-20%	PEG 3000				
1117.1		Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000				
1117.1		Tris-HCl	8.5			4%	PEG 8000				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M additive
1117.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol		10%	PEG 4000
1117				.2	Ammonium Acetate	20%	PEG 3350			
1117				.2	Ammonium fluoride	20%	PEG 3350			
1117				.2	Ammonium formate	20%	PEG 3350			
1117				.2	Ammonium nitrate	20%	PEG 3350			
1117				.1 .2	Calcium Chloride	20-25%	PEG 3350			
1117				.2	di-Ammonium hydrogen citrate	20%	PEG 3350			
1117				.2	di-Ammonium hydrogen phosphate	20%	PEG 3350			
1117				.2	Di-Ammonium Tartrate	20%	PEG 3350			
1117				0.05 - 0.35	K2HPO4	2.5-20%	PEG 3350			
1117				.2	Di-Sodium Tartrate	20%	PEG 3350			
1117				.1 .2 .3	Lithium acetate	15-20%	PEG 3350			
1117				.2	Lithium Chloride	20%	PEG 3350			
1117				.1 .2 .3 .4	Magnesium Acetate	10-25%	PEG 3350			
1117				.2	Magnesium Chloride	20%	PEG 3350			
1117				.05 .1 .2 .25	Magnesium formate	5-20%	PEG 3350			
1117				.2	Magnesium nitrate	20%	PEG 3350			
1117				.2	Potassium Chloride	20%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1117				.2	Potassium fluoride	20%	PEG 3350			
1117				.2	Potassium formate	20%	PEG 3350			
1117				.2	Potassium iodide	20%	PEG 3350			
1117				.2	Potassium nitrate	20%	PEG 3350			
1117				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350			
1117				0.1 - 0.5	Sodium Acetate	15-30%	PEG 3350			
1117				.1 .2 .3	Sodium Chloride	15-20%	PEG 3350			
1117				.2	Sodium fluoride	20%	PEG 3350			
1117				.2	Sodium formate	20%	PEG 3350			
1117				.2	Sodium iodide	20%	PEG 3350			
1117				.2	Sodium Nitrate	20%	PEG 3350			
1117				.2	Sodium thiocyanate	20%	PEG 3350			
1117				.2	tri-Lithium citrate	20%	PEG 3350			
1117				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350			
1117				.2	tri-Sodium citrate	20%	PEG 3350			
1118.1		HEPES	7.5			5-10%	Iso-Propanol		10	PEG 4000
1118.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol		10%	PEG 4000
1118				.2	Ammonium chloride	20%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1118				.2	Ammonium dihydrogen phosphate	20%	PEG 3350			
1118				.2	Ammonium fluoride	20%	PEG 3350			
1118				.2	Ammonium formate	20%	PEG 3350			
1118				.2	Ammonium nitrate	20%	PEG 3350			
1118				.1 .2	Calcium Chloride	20-25%	PEG 3350			
1118				.1 .2 .3	Lithium acetate	15-20%	PEG 3350			
1118				.2	Lithium Chloride	20%	PEG 3350			
1118				.2	Magnesium Chloride	20%	PEG 3350			
1118				.05 .1 .2 .25	Magnesium formate	5-20%	PEG 3350			
1118				.2	Potassium Chloride	20%	PEG 3350			
1118				.2	Potassium formate	20%	PEG 3350			
1118				.1 .2 .3 .4	Sodium Chloride	15% 20%	PEG 3350			
1118				.2	Sodium fluoride	20%	PEG 3350			
1118				.2	Sodium formate	20%	PEG 3350			
1121.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000			
11210.1-0.3		NaH ₂ PO ₄				20-25%	PEG 3350			
1121.1		Tris	7	0.1-0.25	Calcium Acetate	10-25%	PEG 3000			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1121	0.05-.15	Tri-Sodium Citrate Dihydrate	5.0-5.6			5-20%	Iso-Propanol	0-12.5%	PEG 4000		
1121				.2	Potassium iodide	20%	PEG 3350				
1121				.2	NaH ₂ PO ₄	20%	PEG 3350				
1121				.2	tri-Lithium citrate	20%	PEG 3350				
1121				.2	tri-Sodium citrate	20%	PEG 3350				
1122.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000				
1122.1		Tris	7.0-7.6	0.1-0.25	Calcium Acetate	10-25%	PEG 3000				
1122.1		Tri-Sodium Citrate Dihydrate	5.6	.2	Ammonium Acetate	15-30%	PEG 4000				
1122.03-0.25		Tri-Sodium Citrate Dihydrate	5.6-5.8			5-15%	PEG 4000	5-15%	Iso-Propanol		
1122.05-0.25		Tri-Sodium Citrate Dihydrate	5.0-5.8			10%	PEG 4000			10-20%	Iso-propanol
1122.1		Tri-Sodium Citrate Dihydrate	5.6			5%	PEG 4000	10%	Iso-Propanol	4mM	Magnesium Sulphate
1122.1		Tri-Sodium Citrate Dihydrate	5.6			5%	PEG 4000	10%	Iso-Propanol	4mM	Manganese (II) Chloride
1122.1		Tri-Sodium Citrate Dihydrate	5.6			5%	PEG 4000	10%	Iso-Propanol	4mM	calcium chloride

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1122.1		Tri-Sodium Citrate Dihydrate	5.6			5%	PEG 4000	10%	Iso-Propanol	2mM	Iron chloride
1122.1		Tri-Sodium Citrate Dihydrate	5.6			5%	PEG 4000	10%	Iso-Propanol	4mM	sodium acetate
1122.1		Tri-Sodium Citrate Dihydrate	5.6			5%	PEG 4000	10%	Iso-Propanol	4mM	zinc chloride
1122				.2	Ammonium chloride	20%	PEG 3350				
1122				.1 .15 .2 .25	Calcium Acetate	15-25%	PEG 3350				
1122				.1 .2	Calcium Chloride	20-25%	PEG 3350				
1122				.2	di-Ammonium hydrogen citrate	20%	PEG 3350				
1122				.2	Di-Ammonium Tartrate	20%	PEG 3350				
1122				.2	Di-Sodium Tartrate	20%	PEG 3350				
1122				.2	Lithium nitrate	20%	PEG 3350				
1122				0.1-0.4	Magnesium Acetate	10-25%	PEG 3350				
1122				.2	Magnesium Chloride	20%	PEG 3350				
1122				.05 .1 .2 .25	Magnesium formate	5-20%	PEG 3350				
1122				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350				
1122				.1 .2 .3	Sodium sulphate	15-25%	PEG 3350				
1122				.2	tri-Lithium citrate	20%	PEG 3350				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1122				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350			
1122				.2	tri-Sodium citrate	20%	PEG 3350			
1123.1		HEPES	7.5			5-10%	Iso-Propanol		10	PEG 4000
1123				.2	Ammonium fluoride	20%	PEG 3350			
1123				.2	Ammonium formate	20%	PEG 3350			
1123				.2	Lithium Chloride	20%	PEG 3350			
1123				.2	Potassium fluoride	20%	PEG 3350			
1123				.2	Potassium formate	20%	PEG 3350			
1123				.2	Sodium fluoride	20%	PEG 3350			
1123				.2	Sodium formate	20%	PEG 3350			
1165.1		Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol		10%	PEG 4000
1319.1		Cacodylate	6.5	.2	Magnesium Chloride	10%	PEG 3000			
1319.05 .1 .15		HEPES	7.5	.1 .2	Sodium Chloride	5-15%	2-propanol			
1319.1		HEPES	7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000			
1319.05 .1 .15		K Na Phosphate	6.2	.1 .2	Sodium Chloride	10% 20%	PEG 8000			
1319.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000			
1319.1		MES	6	.2	Calcium Acetate	20%	PEG 8000			
1319.0.05-0.2		Tris	7			7.5-20%	Ethanol			
1319				.1 .2 .3	Sodium sulphate	15-25%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1339.1		CAPS	10.5			30%	PEG 400			
1339.1		HEPES	7.5	.2	Magnesium Chloride	15%	Ethanol			
1339	0.05-0.2	HEPES	7.5	.1 .2 .25 .3 .35	Sodium Chloride	20-35%	PEG 400			
1339.1		HEPES	7.5			10% 5%	Iso-Propanol		10	PEG 4000
1339.1		Tris	7	.1 .15 .2 .25	Calcium Acetate	10-25%	PEG 3000			
1339	0.05-0.2	Tris	7			7.5-20%	Ethanol			
1339.1		Tris-HCl	8.5			4%	PEG 8000			
1339.05 .1 .15		Tri-Sodium Citrate Dihydrate	5.6			5-20%	Iso-Propanol	0-12.5%	PEG 4000	
1339.1		Tri-Sodium Citrate Dihydrate	5.0-5.8			10-20%	Iso-Propanol	0-10%	PEG 4000	
1339				.2	Ammonium Iodide	20%	PEG 3350			
1339				.2	Di-Ammonium Tartrate	20%	PEG 3350			
1339				.2	Na2HPO4	20%	PEG 3350			
1339				.2	Di-Sodium Tartrate	20%	PEG 3350			
1339				.1 .2 .3	Lithium acetate	15% 20%	PEG 3350			
1339				.2	Magnesium Chloride	20%	PEG 3350			
1339				.2	Potassium Chloride	20%	PEG 3350			
1339				.2	Potassium sulphate	20%	PEG 3350			
1339				.1 .15 .2 .3 .5	Sodium Acetate	15% 20% 25% 30%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M additive
1339				.1 .2 .3	Sodium Chloride	15% 20%	PEG 3350			
1339				.4						
1339				.2	NaH ₂ PO ₄	20%	PEG 3350			
1339				.1 .2 .3	Sodium sulphate	15% 20% 25%	PEG 3350			
1340.05 .15	Tri-Sodium Citrate Dihydrate		5.6			10% 15% 20% 5%	Iso-Propanol	10% 12.5% 5% 4000	PEG 4000	
1340.1	Tri-Sodium Citrate Dihydrate		5.0-5.8			10-20%	Iso-Propanol	10%	PEG 4000	
1340				.1 .2	Ammonium Sulphate	15-25%	PEG 3350			
1340				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350			
1340				.2	Sodium fluoride	20%	PEG 3350			
1361.1	MES		6	.2	Calcium Acetate	20%	PEG 8000			
1362.05 .15	K Na Phosphate		6.2	.1 .2	Sodium Chloride	10% 20%	PEG 8000			
1362.1	Tri-Sodium Citrate Dihydrate		5.6			10% 20%	Iso-Propanol		10% PEG 4000	
1363.1	CAPS		10.5			30%	PEG 400			
1363.05 .15	HEPES		7.5	.1 .2	Sodium Chloride	10% 15.000 5.000	2-propanol			
1363	HEPES		7.5	.1 .2 .25 .3 .35	Sodium Chloride	20% 25 25% 27.5 30% 35%	PEG 400			
1363.1	HEPES		7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000			
1363.1	HEPES		7.5			10% 5%	Iso-Propanol		10 PEG 4000	
1363.1	Imidazole		8	.2	Calcium Acetate	10%	PEG 8000			
1363.05 .15	K Na Phosphate		6.2	.1 .2	Sodium Chloride	10% 20%	PEG 8000			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1363	.1	K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000			
1363	.1	Sodium Cacodylate	6.5	.2	Magnesium Acetate	10% 20%	PEG 8000			
1363	.1	Sodium Cacodylate	6.5	.2	Sodium Acetate	15% 30%	PEG 8000			
1363	.1	Tri-Sodium Citrate Dihydrate	5.6	.2	Ammonium Acetate	15% 30%	PEG 4000			
1363	.05 .1 .15	Tri-Sodium Citrate Dihydrate	5.4-5.8			10-20%	Iso-Propanol	5-12.5%	PEG 4000	
1363				.2	Ammonium Acetate	20%	PEG 3350			
1363				.2	Ammonium fluoride	20%	PEG 3350			
1363				.2	Na ₂ HPO ₄	20%	PEG 3350			
1363				.2	Magnesium sulphate	20%	PEG 3350			
1363				.2	Potassium iodide	20%	PEG 3350			
1363				.2	Potassium nitrate	20%	PEG 3350			
1363				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350			
1363				.2	Potassium thiocyanate	20%	PEG 3350			
1363				.2	Sodium iodide	20%	PEG 3350			
1363				.2	Sodium Nitrate	20%	PEG 3350			
1363				.2	Sodium thiocyanate	20%	PEG 3350			
1363				.2	tri-Sodium citrate	20%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1364.1		CAPS	10.5			30%	PEG 400			
1364.1		Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol			
1364.1		Imidazole	8	.2	Calcium Acetate	10%	PEG 8000			
1364.1		Sodium Citrate	5.5			20%	PEG 3000			
1364.1		Tri-Sodium Citrate Dihydrate	5.6	.2	Ammonium Acetate	15% 30%	PEG 4000			
1364.05 .1 .15		Tri-Sodium Citrate Dihydrate	5.6-5.8			5-20%	Iso-Propanol	5-12.5	PEG 4000	
1364				.2	Ammonium dihydrogen phosphate	20%	PEG 3350			
1364				.1 .2	Ammonium Sulphate	15-25%	PEG 3350			
1364				.2	Di-Sodium Tartrate	20%	PEG 3350			
1364				.2	Lithium Sulphate	20% 25%	PEG 3350			
1364				.2 .25	Potassium acetate	20% 25%	PEG 3350			
1364				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350			
1364				.1 .15 .2 .3 .5	Sodium Acetate	15% 20% 25% 30%	PEG 3350			
1364				.2	Sodium iodide	20%	PEG 3350			
1364				.2	Sodium Nitrate	20%	PEG 3350			
1364				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350			
1366.1		Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1366	.05 .1 .15	Tri-Sodium Citrate Dihydrate	5.6			5-20%	Iso-Propanol	10% 12.5% 5% 7.5%	PEG 4000	
1366	.1	Tri-Sodium Citrate Dihydrate	5.0-5.8			10-20%	Iso-Propanol	10%	PEG 4000	
1367	.05 .1 .2 .4	Potassium Dihydrogen Phosphate								
1368	.075 .1 .15 .2	CHES	9.5			20-35%	PEG 400			
1368	.1	Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol			
1368		HEPES	7.5	.1 .2 .25 .3 .35	Sodium Chloride	20-35%	PEG 400			
1368	0.05-0.2 .1	HEPES	7.5			5-10%	Iso-Propanol		10 PEG 4000	
1368	.05 .1 .15	K Na Phosphate	6.2	.1 .2	Sodium Chloride	10-20%	PEG 8000			
1368	.1	K Na Phosphate	6.2			10%	PEG 3000			
1368	.1	MES	6	.2	Calcium Acetate	20%	PEG 8000			
1368	.1	Sodium Citrate	5.5			20%	PEG 3000			
1368	.05 .1 .15	Tri-Sodium Citrate Dihydrate	5.6			5-20%	Iso-Propanol	10% 12.5% 5% 7.5%	PEG 4000	
1368	.1	Tri-Sodium Citrate Dihydrate	5.2-5.8			10-20%	Iso-Propanol	10%	PEG 4000	
1368				.2	Ammonium Chloride	20%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1368				.1 .2	Ammonium Sulphate	15-25%	PEG 3350			
1368				.1 .15 .2 .25	Calcium Acetate	15-25%	PEG 3350			
1368				.2	Di-Sodium Tartrate	20%	PEG 3350			
1368				.2	Lithium Chloride	20%	PEG 3350			
1368				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350			
1368				.2	Potassium sulphate	20%	PEG 3350			
1368				.2	Sodium formate	20%	PEG 3350			
1368				.1 .2 .3	Sodium sulphate	15-25%	PEG 3350			
1368				.2	tri-lithium citrate	20%	PEG 3350			
1368				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350			
1369.1		HEPES	7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000			
1369.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000			
1369.1		Sodium Citrate	5.5			20%	PEG 3000			
1369.1		Tris	7	.1 .15 .2 .25	Calcium Acetate	10-25%	PEG 3000			
1369.0.05-0.15		Tri-Sodium Citrate Dihydrate	5.0-5.8			5-20%	Iso-Propanol	0-12.5%	PEG 4000	
1369				.2	Ammonium fluoride	20%	PEG 3350			
1369				.2	Ammonium formate	20%	PEG 3350			
1369				.1 .2	Ammonium Sulphate		PEG 3350			
1369				.1 .15 .2 .25	Calcium Acetate	15-25%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1369				.2	di-Ammonium hydrogen citrate	20%	PEG 3350			
1369				.2	Di-Sodium Tartrate	20%	PEG 3350			
1369				.2	Lithium Chloride	20%	PEG 3350			
1369				.2	Lithium nitrate	20%	PEG 3350			
1369				.2	Lithium Sulphate	20-25%	PEG 3350			
1369				.05 .1 .2 .25	Magnesium formate	5-20%	PEG 3350			
1369				.2 .25	Potassium acetate	20-25%	PEG 3350			
1369				.2	Potassium Chloride	20%	PEG 3350			
1369				.2	Potassium fluoride	20%	PEG 3350			
1369				.2	Potassium formate	20%	PEG 3350			
1369				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350			
1369				.2	Potassium sulphate	20%	PEG 3350			
1369				.2	Potassium thiocyanate	20%	PEG 3350			
1369				.1 .15 .2 .3 .5	Sodium Acetate	15-30%	PEG 3350			
1369				.1 .2 .3 .4	Sodium Chloride	15-20%	PEG 3350			
1369				.2	Sodium fluoride	20%	PEG 3350			
1369				.2	Sodium formate	20%	PEG 3350			
1369				.2	Sodium Nitrate	20%	PEG 3350			
1369				.1 .2 .3	Sodium sulphate	15-25%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1369				.2	tri-Lithium citrate	20%	PEG 3350			
1369				.1 .2 .25 .3	tri-Potassium citrate	15-25%	PEG 3350			
1369				.2	tri-Sodium citrate	20%	PEG 3350			
1370.1		K Na Phosphate	6.2			10%	PEG 3000			
1370.05 .1 .15		Tri-Sodium Citrate Dihydrate	5.4- 5.8			5-20%	Iso-Propanol	0-12.5%	PEG 4000	
1370				.2	Ammonium chloride	20%	PEG 3350			
1370				.2	Di-Sodium Tartrate	20%	PEG 3350			
1370				.2	Potassium Chloride	20%	PEG 3350			
1370				.2	Potassium fluoride	20%	PEG 3350			
1370				.1 .2 .3	Potassium sodium tartrate	15-25%	PEG 3350			
1370				.2	Potassium thiocyanate	20%	PEG 3350			
1370				.2	NaH ₂ PO ₄	20%	PEG 3350			
1370				.2	Sodium formate	20%	PEG 3350			
1370				.2	tri-Sodium citrate	20%	PEG 3350			
1371.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000			
1371.1		MES	6	.2	Calcium Acetate	20%	PEG 8000			
1371.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000			
1371.1		Sodium Citrate	5.5			20%	PEG 3000			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1371.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol			10%	PEG 4000
1371				.2	Di-Sodium Tartrate	20%	PEG 3350				
1371				.2	Lithium Sulphate	20-25%	PEG 3350				
1371				.2	Magnesium Chloride	20%	PEG 3350				
1371				.2	NaH ₂ PO ₄	20%	PEG 3350				
1371				.1 .2 .25	tri-Potassium citrate	15-25%	PEG 3350				
1372.1		Sodium Acetate Trihydrate	4.6	.2	Ammonium Acetate	15-30%	PEG 4000				
1372.1		Sodium Acetate Trihydrate	4.6			1.0-2.0M	Sodium Formate				
1372.1		Sodium Cacodylate	6.5	.2	Ammonium Sulphate	15-30%	PEG 8000				
1372				.2	NaH ₂ PO ₄	20%	PEG 3350				
1391.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000				
1391.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol			10%	PEG 4000
1391				.1 .15 .2	Calcium Acetate	15-25%	PEG 3350				
1391				.25							
1391				.2	di-Ammonium hydrogen citrate	20%	PEG 3350				
1391				.2	Sodium formate	20%	PEG 3350				
1391				.2	tri-lithium citrate	20%	PEG 3350				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1391					tri-sodium citrate	20%	PEG 3350				
1392.05 .1 .15		HEPES	7.5	.1 .2	Sodium Chloride	5-15%	2-propanol				
1392		HEPES	7.5	.1 .2 .25 .3 .35	Sodium Chloride	20-35%	PEG 400				
1392.1	0.05-0.2	HEPES	7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000				
1392.1		HEPES	7.5			5-10%	Iso-Propanol		10	PEG 4000	
1392.1		Imidazole	8	.2	Calcium Acetate	10%	PEG 8000				
1392.1		Sodium Cacodylate	6.5	.2	Sodium Acetate	15-30%	PEG 8000				
1392.1		Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000				
1392		Tris	7			10% 15% 20%	Ethanol				
1392	0.05-0.2	Tris	7			7.5% 15% 20% 25% 30%	MPEG 2000				
1392.1		Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000				
1392.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol		10%	PEG 4000	
1392				.1 .2 .3	Lithium acetate	15-20%	PEG 3350				
1392				.2	Lithium Chloride	20%	PEG 3350				
1392				.2	Lithium nitrate	20%	PEG 3350				
1392				.2	Potassium Chloride	20%	PEG 3350				
1392				.2	Potassium formate	20%	PEG 3350				
1392				.2	Potassium iodide	20%	PEG 3350				
1392				.2	Potassium nitrate	20%	PEG 3350				
1392				.1 .2 .3 .4	Sodium Chloride	15-20%	PEG 3350				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M additive
1392				.2	Sodium fluoride	20%	PEG 3350			
1392				.2	Sodium formate	20%	PEG 3350			
1392				.2	Sodium Nitrate	20%	PEG 3350			
1394.1		CHES	9.5	.2	Sodium Chloride	10%	PEG 8000			
1394.075 .1 .15 .2		CHES	9.5			20-35%	PEG 400			
1394.1		Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol			
1394.1		HEPES	7.5	.2	Magnesium Chloride	15%	Ethanol			
1394.1		HEPES	7.5	.2	Magnesium Chloride	15-30%	Iso-Propanol			
1394.1		HEPES	7.5	.2	Magnesium Chloride	15-30%	PEG 400			
1394.05 .1 .15		HEPES	7.5	.1 .2	Sodium Chloride	10% 15.000 5.000	2-propanol			
1394.1		HEPES	7.5	.15 .2	Sodium Chloride	15-20%	PEG 3000			
1394.1		HEPES	7.5			10% 5%	Iso-Propanol		10	PEG 4000
1394.1		Imidazole	8	.2	Calcium Acetate	10%	PEG 8000			
1394.1		Imidazole	8	.2	Lithium Sulphate	10%	PEG 3000			
1394.1		Imidazole	8	.2	Magnesium Chloride	15%	PEG 4000			
1394.1		Imidazole	8			10%	2-propanol			
1394.1		MES	6	.2	Calcium Acetate	20%	PEG 8000			
1394.1 .15		Phosphate-Citrate	4.2	.1 .2 .3	Sodium Chloride	10% 15.000	PEG 3000			
1394.1		Sodium Cacodylate	6.5	.2	Ammonium Sulphate	15% 30%	PEG 8000			
1394.1		Sodium Cacodylate	6.5	.2	tri-sodium citrate	15%	Iso-Propanol			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1394.1	0.05-0.2	Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000			
1394.1		Tris	7	.2	Magnesium Chloride	10%	PEG 8000			
1394		Tris	7			10% 15% 20% 7.5%	Ethanol			
1394.1		Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000			
1394.1		Tris-HCl	8.5			4%	PEG 8000			
1394.1		Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol		10%	PEG 4000
1394				.2	Ammonium dihydrogen phosphate	20%	PEG 3350			
1394				.2	Na ₂ HPO ₄	20%	PEG 3350			
1394				.2	Di-Sodium Tartrate	20%	PEG 3350			
1394				.2	Magnesium Chloride	20%	PEG 3350			
1394				.05 .1 .2 .25	Magnesium formate	15% 20% 5%	PEG 3350			
1394				.2	Sodium Nitrate	20%	PEG 3350			
1394				.2	tri-Lithium citrate	20%	PEG 3350			
1394				.1 .2 .25 .3	tri-Potassium citrate	15.000 20% 25%	PEG 3350			
1394				.2	tri-Sodium citrate	20%	PEG 3350			
1394						0.1 0.2 M	Magnesium Formate			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1394						0.2	Mono-ammonium Dihydrogen Phosphate			
1394						0.2	Potassium Sodium Tartrate Dihydrate			
1396.1		CAPS	10.5			30%	PEG 400			
1396.075 .1 .15 .2		CHES	9.5			20.0 25% 30% 35%	PEG 400			
1396.1		Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol			
1396.05 .1 .15		HEPES	7.5	.1 .2	Sodium Chloride	10% 15% 5%	2-propanol			
1396.05 .1 .2		HEPES	7.5	.1 .2 .25 .3 .35	Sodium Chloride	20% 25% 27.5% 30% 35%	PEG 400			
1396.1		HEPES	7.5	.15 .2	Sodium Chloride	15% 20%	PEG 3000			
1396.1		HEPES	7.5			10% 5%	Iso-Propanol		10	PEG 4000
1396.1		Imidazole	8	.2	Calcium Acetate	10%	PEG 8000			
1396.05 .1 .15		K Na Phosphate	6.2	.1 .2	Sodium Chloride	10% 20%	PEG 8000			
1396.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000			
1396.1		Phosphate-Citrate	4.2	.05 .2	Lithium Sulphate	20%	PEG 1000			
1396.1 .15		Phosphate-Citrate	4.2	.1 .2 .3	Sodium Chloride	10% 10.000 15.000	PEG 3000			
1396.1		Tris	7	.1 .15 .2 .25	Calcium Acetate	15-25%	PEG 3000			
1396.1		Tris	8.5	.2	Magnesium Chloride	30%	PEG 400			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1396	1	Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000			
1396	0.05-0.2	Tris	7			15-30%	MPEG 2000			
1396	1	Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000			
1396	1	Tri-Sodium Citrate Dihydrate	5.6	.2	Ammonium Acetate	15% 30%	PEG 4000			
1396	1	Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol		10%	PEG 4000
1396				.2	Ammonium formate	20%	PEG 3350			
1396				.1 .2	Calcium Chloride	20% 25.000	PEG 3350			
1396				.1 .2 .3	Lithium acetate	15% 20%	PEG 3350			
1396				.2	Lithium Chloride	20%	PEG 3350			
1396				.2	Lithium nitrate	20%	PEG 3350			
1396				.05 .1 .2 .25	Magnesium formate	15% 20% 5%	PEG 3350			
1396				.2	Potassium Chloride	20%	PEG 3350			
1396				.2	Potassium nitrate	20%	PEG 3350			
1396				.2	Potassium thiocyanate	20%	PEG 3350			
1396				.1 .2 .3 .4	Sodium Chloride	15% 20%	PEG 3350			
1396				.2	Sodium fluoride	20%	PEG 3350			
1396				.2	Sodium formate	20%	PEG 3350			
1396				.2	Sodium Nitrate	20%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1396					Sodium thiocyanate	20%	PEG 3350			
1397.1		Cacodylate	6.5	.2	Magnesium Chloride	10%	PEG 3000			
1397.1		HEPES	7.5	.2	Calcium Chloride	14% 28%	PEG 400			
1397.1		HEPES	7.5	.2	Magnesium Chloride	15%	Ethanol			
1397.1		HEPES	7.5	.2	Magnesium Chloride	15-30%	PEG 400			
1397.05 .1		HEPES	7.5	.1 .2	Sodium Chloride	10% 15.000 5.000	2-propanol			
1397.1		HEPES	7.5			10% 5%	Iso-Propanol		10	PEG 4000
1397.1		Imidazole	8	.2	Lithium Sulphate	10%	PEG 3000			
1397.1		Imidazole	8			10%	2-propanol			
1397.05 .1		K Na Phosphate	6.2	.1 .2	Sodium Chloride	10% 20%	PEG 8000			
1397.1		K Na Phosphate	6.2	.2	Sodium Chloride	20%	PEG 1000			
1397.1		Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000			
1397.1		Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000			
1397.1		Tris-HCl	8.5			4%	PEG 8000			
1397				.2	Ammonium formate	20%	PEG 3350			
1397				.1 .15 .2	Calcium Acetate	15-25%	PEG 3350			
1397				.2	di-Ammonium hydrogen phosphate	20%	PEG 3350			
1397				.2	Lithium Chloride	20%	PEG 3350			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1397				.2	Lithium Sulphate	20% 25%	PEG 3350				
1397				.2	Magnesium sulphate	20%	PEG 3350				
1397				.05	Mono-potassium Dihydrogen Phosphate	10%	PEG 8000				
1397				.2	Potassium Chloride	20%	PEG 3350				
1397				.1 .15 .2 .3 .5	Sodium Acetate	15-30%	PEG 3350				
1397				.2	NaH ₂ PO ₄	20%	PEG 3350				
1397				.2	Sodium thiocyanate	20%	PEG 3350				
1397				.2	tri-lithium citrate	20%	PEG 3350				
1397				.1 .2 .25 .3	tri-Potassium citrate	15.000 20% 25%	PEG 3350				
1397				.2	tri-Sodium citrate	20%	PEG 3350				
1397						0.1 0.2 M	Magnesium Formate				
1397						0.2	Mono-ammonium Dihydrogen Phosphate				
1397						0.2	Potassium Sodium Tartrate Dihydrate				
1424	.075 .1 .15 .2	CHES	9.5			20% 25% 30% 35%	PEG 400				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1424.1		HEPES	7.5			10% 5%	Iso-Propanol			10	PEG 4000
1424		Tris	7			10% 15% 20% 7.5%	Ethanol				
1424.1	0.05-0.2	Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol			10%	PEG 4000
1424				.2	Na ₂ HPO ₄	20%	PEG 3350				
1443.1		Sodium Citrate	5.5			20%	PEG 3000				
1443.1		Tris	7	.1 .15 .2 .25	Calcium Acetate	10% 15% 20% 25%	PEG 3000				
1443.05 .15		Tri-Sodium Citrate Dihydrate	5.0-5.6			5-20%	Iso-Propanol	5-12.5%	PEG 4000		
1444		HEPES	7.5	.1 .2 .25 .3 .35	Sodium Chloride	20% 25 25% 27.5 30% 35%	PEG 400				
1444.1	0.05-0.2			.2	Sodium Chloride	20%	PEG 1000				
1444.1		K Na Phosphate	6.2			10%	PEG 3000				
1444.1		K Na Phosphate	6.2			10-25%	PEG 3000				
1444.1		Tris	7	0.1-0.25	Calcium Acetate	7.5-20%	Ethanol				
1444.05-0.2		Tris	7								
1444.1		Tri-Sodium Citrate Dihydrate	5.6			10% 20%	Iso-Propanol			10%	PEG 4000
1444				.2	Ammonium Iodide	20%	PEG 3350				
1444				0.1-0.25	Calcium Acetate	15-25%	PEG 3350				
1444				.2	di-Ammonium hydrogen phosphate	20%	PEG 3350				
1444				.2	Di-Ammonium Tartrate	20%	PEG 3350				
1444				0.1-0.4	Magnesium Acetate	10-25%	PEG 3350				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1444				0.05-0.25	Magnesium formate	5-20%	PEG 3350				
1444				.2	Magnesium nitrate	20%	PEG 3350				
1444				.2	Potassium formate	20%	PEG 3350				
1444				.2	Potassium nitrate	20%	PEG 3350				
1444				0.1-0.3	Potassium sodium tartrate	15-25%	PEG 3350				
1444				.2	NaH ₂ PO ₄	20%	PEG 3350				
1444				.2	Sodium formate	20%	PEG 3350				
1444				0.1-0.3	tri-Potassium citrate	15-25%	PEG 3350				
1444				.2	tri-Sodium citrate	20%	PEG 3350				
1444						0.1-0.2	Magnesium formate				
1444						0.2	Potassium Sodium Tartrate Dihydrate				
1475.1		Acetate	4.5	.2	Lithium Sulphate	30%	PEG 8000				
1475.1		Cacodylate	6.5	.2	Magnesium Chloride	10%	PEG 3000				
1475.1		CHES	9.5	.2	Sodium Chloride	10%	PEG 8000				
1475.075 .1 .15 .2		CHES	9.5			20-35%	PEG 400				
1475.1		CHES	9.5			15%	Ethanol				
1475.1		Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol				
1475.1		HEPES	7.5	.2	Calcium Chloride	14% 28%	PEG 400				
1475.1		HEPES	7.5	.2	Magnesium Chloride	15%	Ethanol				
1475.1		HEPES	7.5	.2	Magnesium Chloride	15-30%	PEG 400				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1475	0.05 .1 .15	HEPES	7.5	0.1-0.2	Sodium Chloride	5-15%	2-propanol				
1475	.1	HEPES	7.5	0.15-0.2	Sodium Chloride	15-20%	PEG 3000				
1475	.1	Imidazole	8	.2	Calcium Acetate	10%	PEG 8000				
1475	.1	Imidazole	8	.2	Lithium Sulphate	10%	PEG 3000				
1475	.1	Imidazole	8	.2	Magnesium Chloride	15%	PEG 4000				
1475	.1	Imidazole	8			10%	2-propanol				
1475	.1	MES	6	.2	Calcium Acetate	10%	2-propanol				
1475	.1	Phosphate-Citrate	4.2	.2	Lithium Sulphate	10%	2-propanol				
1475		Sodium Cacodylate	6.5		Magnesium Acetate		2 Methyl 2	4	Pentaned iol		
1475	.1	Sodium Cacodylate	6.5	.2	Magnesium Chloride	20%	PEG 1000				
1475	.1	Tris	8.5	.2	Magnesium Chloride	30%	PEG 400				
1475	.1	Tris	8.5	.2	Magnesium Chloride	15-30%	PEG 4000				
1475	.1	Tris	7	.2	Magnesium Chloride	10%	PEG 8000				
1475	0.05-0.2	Tris	7			7.5-20%	Ethanol				
1475	.1	Tris	8.5			10%	2-propanol				
1475	.1	Tris	8.5			20%	PEG 1000				
1475	.1	Tris-HCl	8.5	.2	Sodium Acetate	15%	PEG 4000				
1475	.1	Tris-HCl	8.5			4%	PEG 8000				
1475		Tri-Sodium Citrate Dihydrate	5.6		Ammonium Acetate		2 Methyl 2	4	Pentaned iol		

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M Additive
1475.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol		10%	PEG 4000
1475				.2	Di-Ammonium Tartrate	20%	PEG 3350			
1475				.2	Na2HPO4	20%	PEG 3350			
1475				0.2-0.25	Potassium acetate	20-25%	PEG 3350			
1475				.2	tri-Lithium citrate	20%	PEG 3350			
1475				0.1-0.3	tri-Potassium citrate	15-25%	PEG 3350			
1475						0.1-0.2 M	Magnesium Formate			
1475						0.2	Mono-ammonium Dihydrogen Phosphate			
1475						0.2	Potassium Sodium Tartrate Dihydrate			
1477.1		CAPS	10.5	.2	Sodium Chloride	20%	PEG 8000			
1477.1		CHES	9.5	.2	Sodium Chloride	10%	PEG 8000			
1477.0.075-0.2		CHES	9.5			20-35%	PEG 400			
1477.1		CHES	9.5			15%	Ethanol			
1477.1		Citrate	5.5	.2	Lithium Sulphate	15%	Ethanol			
1477.1		HEPES	7.5	.2	Magnesium Chloride	15-30%	Iso-Propanol			
1477.1		HEPES	7.5	.2	Magnesium Chloride	15-30%	PEG 400			
1477.0.05-0.15		HEPES	7.5	.1 .2	Sodium Chloride	5-15%	2-propanol			

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add	Madditive
1477.1		HEPES	7.5			10% 5%	Iso-Propanol			10	PEG 4000
1477.1		Imidazole	8	.2	Calcium Acetate	10%	PEG 8000				
1477.1		Imidazole	8	.2	Lithium Sulphate	10%	PEG 3000				
1477.1		Imidazole	8	.2	Magnesium Chloride	15%	PEG 4000				
1477		Sodium Cacodylate	6.5		Magnesium Acetate		2 Methyl 2		4 Pentaned iol		
1477.1		Sodium Cacodylate	6.5	.2	tri-Sodium citrate	15%	Iso-Propanol				
1477.1		Tris	8.5	.2	Magnesium Chloride	30%	PEG 400				
1477.1		Tris	7	.2	Magnesium Chloride	10%	PEG 8000				
1477.1		Tris	8.5	.2	Magnesium Chloride	20%	PEG 8000				
1477 0.05-0.2		Tris	7			7.5-15%	Ethanol				
1477.1		Tris	8.5			10%	2-propanol				
1477.1		Tris	8.5			20%	PEG 1000				
1477.1		Tris-HCL	8.5	.2	Sodium Acetate	15%	PEG 4000				
1477.1		Tris-HCL	8.5			4%	PEG 8000				
1477		Tri-Sodium Citrate Dihydrate	5.6		Ammonium Acetate		2 Methyl 2		4 Pentaned iol		
1477.1		Tri-Sodium Citrate Dihydrate	5.6			10-20%	Iso-Propanol			10%	PEG 4000
1477				.2	di-Ammonium hydrogen phosphate	20%	PEG 3350				
1477				.2	Di-Ammonium Tartrate	20%	PEG 3350				

Figure 6

Clone ID	Buffer (M)	Buffer	pH	Salt (M)	Salt	Ppt (M)	Ppt	Ppt 2 (M)	Ppt 2	Add M	Additive
1477				.2	Di-Sodium Tartrate	20%	PEG 3350				
1477				.2	Sodium thiocyanate	20%	PEG 3350				
1477						0.1-0.2 M	Magnesium Formate				
1477						0.2	Mono-ammonium ammonium Dihydrogen Phosphate				
1477						0.2	Potassium Sodium Tartrate Dihydrate				
1595				.1 .2	Ammonium Sulphate	15-25%	PEG 3350				
1595				.1 .2	Calcium Chloride	20-25%	PEG 3350				
1595				.2	Lithium Chloride	20%	PEG 3350				
1595				.2	Magnesium Chloride	20%	PEG 3350				
1595				.05 .1 .2	Magnesium formate	5-15%	PEG 3350				
1595				.25							
1595				.2	Magnesium nitrate	20%	PEG 3350				
1595				.2	Potassium-formate	20%	PEG 3350				
1595				.1 .2 .3	Sodium Chloride	15-20%	PEG 3350				
1595				.4							
1595				.2	Sodium formate	20%	PEG 3350				
1600	0			0.2	Calcium Chloride	20%	PEG 3350				
1600	0.1	Phosphate-Citrate	4.2	0.2	Sodium Chloride	10%	PEG 3000				
1600	0.1	Tris	8.5	0.2	Magnesium Chloride	20%	PEG 8000				
1662	0.1	Tris	8.0-8.80			15-25%	PEG 400	10%	Glycerol 5%		PEG 8000
1664	.1	Tris-HCl	7	0.1-0.2	Calcium Acetate	15-20%	PEG 3000				

440/514

Figure 7

Table 18

ATOM	1	N	PRO	A	30	-4.901	4.285	37.646	1.00	0.00	A	N
ATOM	2	CA	PRO	A	30	-5.854	4.575	36.540	1.00	0.00	A	C
ATOM	3	CD	PRO	A	30	-3.551	3.964	37.069	1.00	0.00	A	C
ATOM	4	CB	PRO	A	30	-5.130	4.227	35.243	1.00	0.00	A	C
ATOM	5	CG	PRO	A	30	-3.640	4.346	35.585	1.00	0.00	A	C
ATOM	6	C	PRO	A	30	-7.062	3.728	36.779	1.00	0.00	A	C
ATOM	7	O	PRO	A	30	-6.914	2.566	37.155	1.00	0.00	A	O
ATOM	8	N	PRO	A	31	-8.228	4.270	36.539	1.00	0.00	A	N
ATOM	9	CA	PRO	A	31	-9.485	3.592	36.740	1.00	0.00	A	C
ATOM	10	CD	PRO	A	31	-8.392	5.706	36.412	1.00	0.00	A	C
ATOM	11	CB	PRO	A	31	-10.555	4.687	36.750	1.00	0.00	A	C
ATOM	12	CG	PRO	A	31	-9.879	5.892	36.076	1.00	0.00	A	C
ATOM	13	C	PRO	A	31	-9.716	2.573	35.677	1.00	0.00	A	C
ATOM	14	O	PRO	A	31	-8.948	2.523	34.727	1.00	0.00	A	O
ATOM	15	N	GLY	A	32	-10.742	1.720	35.814	1.00	0.00	A	N
ATOM	16	CA	GLY	A	32	-10.995	0.727	34.809	1.00	0.00	A	C
ATOM	17	C	GLY	A	32	-11.908	-0.262	35.443	1.00	0.00	A	C
ATOM	18	O	GLY	A	32	-12.117	-0.212	36.655	1.00	0.00	A	O
ATOM	19	N	PRO	A	33	-12.448	-1.146	34.635	1.00	0.00	A	N
ATOM	20	CA	PRO	A	33	-13.365	-2.176	35.053	1.00	0.00	A	C
ATOM	21	CD	PRO	A	33	-11.935	-1.377	33.293	1.00	0.00	A	C
ATOM	22	CB	PRO	A	33	-13.756	-2.907	33.770	1.00	0.00	A	C
ATOM	23	CG	PRO	A	33	-12.512	-2.741	32.874	1.00	0.00	A	C
ATOM	24	C	PRO	A	33	-12.703	-3.103	36.026	1.00	0.00	A	C
ATOM	25	O	PRO	A	33	-11.497	-3.320	35.906	1.00	0.00	A	O
ATOM	26	N	THR	A	34	-13.471	-3.607	37.015	1.00	0.00	A	N
ATOM	27	CA	THR	A	34	-12.921	-4.500	37.993	1.00	0.00	A	C
ATOM	28	CB	THR	A	34	-13.691	-4.534	39.291	1.00	0.00	A	C
ATOM	29	OG1	THR	A	34	-13.037	-5.386	40.219	1.00	0.00	A	O
ATOM	30	CG2	THR	A	34	-15.143	-4.993	39.060	1.00	0.00	A	C
ATOM	31	C	THR	A	34	-12.857	-5.866	37.382	1.00	0.00	A	C
ATOM	32	O	THR	A	34	-13.773	-6.325	36.698	1.00	0.00	A	O
ATOM	33	N	PRO	A	35	-11.731	-6.488	37.584	1.00	0.00	A	N
ATOM	34	CA	PRO	A	35	-11.457	-7.799	37.054	1.00	0.00	A	C
ATOM	35	CD	PRO	A	35	-10.515	-5.753	37.884	1.00	0.00	A	C
ATOM	36	CB	PRO	A	35	-9.937	-7.887	36.921	1.00	0.00	A	C
ATOM	37	CG	PRO	A	35	-9.415	-6.823	37.899	1.00	0.00	A	C
ATOM	38	C	PRO	A	35	-11.993	-8.908	37.903	1.00	0.00	A	C
ATOM	39	O	PRO	A	35	-12.094	-8.743	39.115	1.00	0.00	A	O
ATOM	40	N	LEU	A	36	-12.301	-10.065	37.279	1.00	0.00	A	N
ATOM	41	CA	LEU	A	36	-12.714	-11.252	37.979	1.00	0.00	A	C
ATOM	42	CB	LEU	A	36	-13.486	-12.261	37.097	1.00	0.00	A	C
ATOM	43	CG	LEU	A	36	-14.912	-11.851	36.646	1.00	0.00	A	C
ATOM	44	CD2	LEU	A	36	-14.939	-10.639	35.698	1.00	0.00	A	C
ATOM	45	CD1	LEU	A	36	-15.850	-11.687	37.845	1.00	0.00	A	C
ATOM	46	C	LEU	A	36	-11.432	-11.884	38.437	1.00	0.00	A	C
ATOM	47	O	LEU	A	36	-10.376	-11.487	37.943	1.00	0.00	A	O
ATOM	48	N	PRO	A	37	-11.485	-12.818	39.375	1.00	0.00	A	N
ATOM	49	CA	PRO	A	37	-10.302	-13.411	39.958	1.00	0.00	A	C
ATOM	50	CD	PRO	A	37	-12.622	-12.908	40.281	1.00	0.00	A	C
ATOM	51	CB	PRO	A	37	-10.805	-14.324	41.075	1.00	0.00	A	C
ATOM	52	CG	PRO	A	37	-12.105	-13.637	41.532	1.00	0.00	A	C
ATOM	53	C	PRO	A	37	-9.244	-14.025	39.075	1.00	0.00	A	C
ATOM	54	O	PRO	A	37	-8.087	-13.644	39.239	1.00	0.00	A	O
ATOM	55	N	VAL	A	38	-9.561	-15.016	38.218	1.00	0.00	A	N
ATOM	56	CA	VAL	A	38	-8.583	-15.529	37.290	1.00	0.00	A	C
ATOM	57	CB	VAL	A	38	-8.636	-17.032	37.156	1.00	0.00	A	C
ATOM	58	CG1	VAL	A	38	-8.145	-17.627	38.484	1.00	0.00	A	C
ATOM	59	CG2	VAL	A	38	-10.064	-17.495	36.811	1.00	0.00	A	C
ATOM	60	C	VAL	A	38	-8.621	-14.898	35.921	1.00	0.00	A	C
ATOM	61	O	VAL	A	38	-7.587	-14.611	35.314	1.00	0.00	A	O
ATOM	62	N	ILE	A	39	-9.855	-14.703	35.416	1.00	0.00	A	N
ATOM	63	CA	ILE	A	39	-10.206	-14.326	34.075	1.00	0.00	A	C
ATOM	64	CB	ILE	A	39	-11.609	-14.723	33.663	1.00	0.00	A	C
ATOM	65	CG2	ILE	A	39	-11.662	-16.259	33.748	1.00	0.00	A	C
ATOM	66	CG1	ILE	A	39	-12.729	-14.024	34.444	1.00	0.00	A	C
ATOM	67	CD1	ILE	A	39	-13.125	-12.667	33.870	1.00	0.00	A	C
ATOM	68	C	ILE	A	39	-9.859	-12.913	33.720	1.00	0.00	A	C
ATOM	69	O	ILE	A	39	-9.846	-12.582	32.535	1.00	0.00	A	O
ATOM	70	N	GLY	A	40	-9.709	-12.014	34.710	1.00	0.00	A	N
ATOM	71	CA	GLY	A	40	-9.319	-10.657	34.424	1.00	0.00	A	C

441/514

Figure 7

ATOM	72	C	GLY	A	40	-10.499	-9.933	33.849	1.00	0.00	A	C
ATOM	73	O	GLY	A	40	-11.611	-10.065	34.352	1.00	0.00	A	O
ATOM	74	N	ASN	A	41	-10.277	-9.134	32.779	1.00	0.00	A	N
ATOM	75	CA	ASN	A	41	-11.376	-8.427	32.190	1.00	0.00	A	C
ATOM	76	CB	ASN	A	41	-11.052	-6.965	31.818	1.00	0.00	A	C
ATOM	77	CG	ASN	A	41	-10.938	-6.106	33.067	1.00	0.00	A	C
ATOM	78	OD1	ASN	A	41	-10.034	-5.284	33.188	1.00	0.00	A	O
ATOM	79	ND2	ASN	A	41	-11.891	-6.274	34.018	1.00	0.00	A	N
ATOM	80	C	ASN	A	41	-11.724	-9.061	30.883	1.00	0.00	A	C
ATOM	81	O	ASN	A	41	-12.203	-8.361	29.995	1.00	0.00	A	O
ATOM	82	N	ILE	A	42	-11.560	-10.396	30.762	1.00	0.00	A	N
ATOM	83	CA	ILE	A	42	-11.816	-11.153	29.564	1.00	0.00	A	C
ATOM	84	CB	ILE	A	42	-11.354	-12.595	29.667	1.00	0.00	A	C
ATOM	85	CG2	ILE	A	42	-12.169	-13.365	30.720	1.00	0.00	A	C
ATOM	86	CG1	ILE	A	42	-11.345	-13.272	28.290	1.00	0.00	A	C
ATOM	87	CD1	ILE	A	42	-10.608	-14.611	28.305	1.00	0.00	A	C
ATOM	88	C	ILE	A	42	-13.276	-11.074	29.223	1.00	0.00	A	C
ATOM	89	O	ILE	A	42	-13.649	-11.101	28.051	1.00	0.00	A	O
ATOM	90	N	LEU	A	43	-14.131	-10.983	30.260	1.00	0.00	A	N
ATOM	91	CA	LEU	A	43	-15.552	-10.890	30.119	1.00	0.00	A	C
ATOM	92	CB	LEU	A	43	-16.230	-10.912	31.498	1.00	0.00	A	C
ATOM	93	CG	LEU	A	43	-17.764	-10.916	31.468	1.00	0.00	A	C
ATOM	94	CD2	LEU	A	43	-18.333	-10.779	32.889	1.00	0.00	A	C
ATOM	95	CD1	LEU	A	43	-18.297	-12.158	30.737	1.00	0.00	A	C
ATOM	96	C	LEU	A	43	-15.889	-9.598	29.425	1.00	0.00	A	C
ATOM	97	O	LEU	A	43	-16.779	-9.564	28.577	1.00	0.00	A	O
ATOM	98	N	GLN	A	44	-15.219	-8.488	29.803	1.00	0.00	A	N
ATOM	99	CA	GLN	A	44	-15.497	-7.225	29.173	1.00	0.00	A	C
ATOM	100	CB	GLN	A	44	-14.894	-6.053	29.965	1.00	0.00	A	C
ATOM	101	CG	GLN	A	44	-15.476	-5.898	31.370	1.00	0.00	A	C
ATOM	102	CD	GLN	A	44	-16.838	-5.234	31.239	1.00	0.00	A	C
ATOM	103	OE1	GLN	A	44	-16.931	-4.024	31.036	1.00	0.00	A	O
ATOM	104	NE2	GLN	A	44	-17.925	-6.043	31.355	1.00	0.00	A	N
ATOM	105	C	GLN	A	44	-14.927	-7.127	27.785	1.00	0.00	A	C
ATOM	106	O	GLN	A	44	-15.662	-7.009	26.807	1.00	0.00	A	O
ATOM	107	N	ILE	A	45	-13.589	-7.264	27.681	1.00	0.00	A	N
ATOM	108	CA	ILE	A	45	-12.808	-7.019	26.492	1.00	0.00	A	C
ATOM	109	CB	ILE	A	45	-11.349	-7.235	26.737	1.00	0.00	A	C
ATOM	110	CG2	ILE	A	45	-10.614	-6.792	25.472	1.00	0.00	A	C
ATOM	111	CG1	ILE	A	45	-10.863	-6.484	27.972	1.00	0.00	A	C
ATOM	112	CD1	ILE	A	45	-9.480	-6.952	28.424	1.00	0.00	A	C
ATOM	113	C	ILE	A	45	-13.135	-8.002	25.422	1.00	0.00	A	C
ATOM	114	O	ILE	A	45	-13.303	-7.622	24.266	1.00	0.00	A	O
ATOM	115	N	ASP	A	46	-13.207	-9.291	25.811	1.00	0.00	A	N
ATOM	116	CA	ASP	A	46	-13.447	-10.422	24.956	1.00	0.00	A	C
ATOM	117	CB	ASP	A	46	-14.621	-10.319	23.955	1.00	0.00	A	C
ATOM	118	CG	ASP	A	46	-15.917	-10.318	24.755	1.00	0.00	A	C
ATOM	119	OD1	ASP	A	46	-15.850	-10.574	25.986	1.00	0.00	A	O
ATOM	120	OD2	ASP	A	46	-16.988	-10.055	24.148	1.00	0.00	A	O
ATOM	121	C	ASP	A	46	-12.193	-10.821	24.230	1.00	0.00	A	C
ATOM	122	O	ASP	A	46	-11.087	-10.372	24.534	1.00	0.00	A	O
ATOM	123	N	ILE	A	47	-12.362	-11.886	23.427	1.00	0.00	A	N
ATOM	124	CA	ILE	A	47	-11.456	-12.553	22.527	1.00	0.00	A	C
ATOM	125	CB	ILE	A	47	-11.811	-14.033	22.460	1.00	0.00	A	C
ATOM	126	CG2	ILE	A	47	-13.254	-14.143	21.946	1.00	0.00	A	C
ATOM	127	CG1	ILE	A	47	-10.804	-14.921	21.694	1.00	0.00	A	C
ATOM	128	CD1	ILE	A	47	-10.987	-14.998	20.174	1.00	0.00	A	C
ATOM	129	C	ILE	A	47	-11.368	-11.924	21.158	1.00	0.00	A	C
ATOM	130	O	ILE	A	47	-10.323	-11.998	20.506	1.00	0.00	A	O
ATOM	131	N	LYS	A	48	-12.507	-11.369	20.684	1.00	0.00	A	N
ATOM	132	CA	LYS	A	48	-12.804	-10.930	19.342	1.00	0.00	A	C
ATOM	133	CB	LYS	A	48	-14.315	-10.725	19.181	1.00	0.00	A	C
ATOM	134	CG	LYS	A	48	-15.071	-12.003	19.547	1.00	0.00	A	C
ATOM	135	CD	LYS	A	48	-16.520	-11.784	19.972	1.00	0.00	A	C
ATOM	136	CE	LYS	A	48	-17.114	-13.012	20.662	1.00	0.00	A	C
ATOM	137	NZ	LYS	A	48	-18.265	-12.617	21.500	1.00	0.00	A	N
ATOM	138	C	LYS	A	48	-12.123	-9.644	19.000	1.00	0.00	A	C
ATOM	139	O	LYS	A	48	-10.894	-9.565	18.968	1.00	0.00	A	O
ATOM	140	N	ASP	A	49	-12.934	-8.623	18.633	1.00	0.00	A	N
ATOM	141	CA	ASP	A	49	-12.414	-7.335	18.284	1.00	0.00	A	C
ATOM	142	CB	ASP	A	49	-13.407	-6.497	17.452	1.00	0.00	A	C
ATOM	143	CG	ASP	A	49	-12.744	-5.227	16.921	1.00	0.00	A	C
ATOM	144	OD1	ASP	A	49	-11.498	-5.085	17.049	1.00	0.00	A	O
ATOM	145	OD2	ASP	A	49	-13.489	-4.380	16.361	1.00	0.00	A	O
ATOM	146	C	ASP	A	49	-12.207	-6.631	19.579	1.00	0.00	A	C

Figure 7

ATOM	147	O	ASP	A	49	-13.068	-5.879	20.032	1.00	0.00	A	O
ATOM	148	N	VAL	A	50	-11.012	-6.849	20.167	1.00	0.00	A	N
ATOM	149	CA	VAL	A	50	-10.564	-6.323	21.429	1.00	0.00	A	C
ATOM	150	CB	VAL	A	50	-9.169	-6.796	21.745	1.00	0.00	A	C
ATOM	151	CG1	VAL	A	50	-8.621	-6.060	22.978	1.00	0.00	A	C
ATOM	152	CG2	VAL	A	50	-9.215	-8.325	21.901	1.00	0.00	A	C
ATOM	153	C	VAL	A	50	-10.527	-4.832	21.305	1.00	0.00	A	C
ATOM	154	O	VAL	A	50	-10.856	-4.120	22.250	1.00	0.00	A	O
ATOM	155	N	SER	A	51	-10.140	-4.341	20.110	1.00	0.00	A	N
ATOM	156	CA	SER	A	51	-10.013	-2.945	19.819	1.00	0.00	A	C
ATOM	157	CB	SER	A	51	-9.484	-2.684	18.399	1.00	0.00	A	C
ATOM	158	OG	SER	A	51	-9.377	-1.286	18.176	1.00	0.00	A	O
ATOM	159	C	SER	A	51	-11.329	-2.228	19.935	1.00	0.00	A	C
ATOM	160	O	SER	A	51	-11.374	-1.090	20.395	1.00	0.00	A	O
ATOM	161	N	LYS	A	52	-12.432	-2.865	19.523	1.00	0.00	A	N
ATOM	162	CA	LYS	A	52	-13.720	-2.235	19.558	1.00	0.00	A	C
ATOM	163	CB	LYS	A	52	-14.791	-2.975	18.741	1.00	0.00	A	C
ATOM	164	CG	LYS	A	52	-15.927	-2.051	18.305	1.00	0.00	A	C
ATOM	165	CD	LYS	A	52	-15.456	-0.976	17.318	1.00	0.00	A	C
ATOM	166	CE	LYS	A	52	-16.570	-0.068	16.789	1.00	0.00	A	C
ATOM	167	NZ	LYS	A	52	-16.005	0.922	15.841	1.00	0.00	A	N
ATOM	168	C	LYS	A	52	-14.200	-2.095	20.967	1.00	0.00	A	C
ATOM	169	O	LYS	A	52	-15.107	-1.321	21.240	1.00	0.00	A	O
ATOM	170	N	SER	A	53	-13.692	-2.936	21.877	1.00	0.00	A	N
ATOM	171	CA	SER	A	53	-14.077	-2.912	23.262	1.00	0.00	A	C
ATOM	172	CB	SER	A	53	-13.649	-4.187	23.999	1.00	0.00	A	C
ATOM	173	OG	SER	A	53	-14.047	-4.113	25.356	1.00	0.00	A	O
ATOM	174	C	SER	A	53	-13.448	-1.762	23.979	1.00	0.00	A	C
ATOM	175	O	SER	A	53	-14.053	-1.185	24.880	1.00	0.00	A	O
ATOM	176	N	LEU	A	54	-12.197	-1.429	23.603	1.00	0.00	A	N
ATOM	177	CA	LEU	A	54	-11.429	-0.395	24.233	1.00	0.00	A	C
ATOM	178	CB	LEU	A	54	-9.967	-0.335	23.748	1.00	0.00	A	C
ATOM	179	CG	LEU	A	54	-8.991	-1.282	24.481	1.00	0.00	A	C
ATOM	180	CD2	LEU	A	54	-9.508	-2.719	24.592	1.00	0.00	A	C
ATOM	181	CD1	LEU	A	54	-8.656	-0.743	25.873	1.00	0.00	A	C
ATOM	182	C	LEU	A	54	-12.056	0.940	24.008	1.00	0.00	A	C
ATOM	183	O	LEU	A	54	-11.980	1.799	24.882	1.00	0.00	A	O
ATOM	184	N	THR	A	55	-12.652	1.158	22.818	1.00	0.00	A	N
ATOM	185	CA	THR	A	55	-13.305	2.402	22.511	1.00	0.00	A	C
ATOM	186	CB	THR	A	55	-13.783	2.481	21.089	1.00	0.00	A	C
ATOM	187	OG1	THR	A	55	-12.684	2.354	20.200	1.00	0.00	A	O
ATOM	188	CG2	THR	A	55	-14.489	3.830	20.870	1.00	0.00	A	C
ATOM	189	C	THR	A	55	-14.499	2.593	23.403	1.00	0.00	A	C
ATOM	190	O	THR	A	55	-14.723	3.692	23.909	1.00	0.00	A	O
ATOM	191	N	ASN	A	56	-15.280	1.515	23.624	1.00	0.00	A	N
ATOM	192	CA	ASN	A	56	-16.460	1.555	24.446	1.00	0.00	A	C
ATOM	193	CB	ASN	A	56	-17.250	0.236	24.431	1.00	0.00	A	C
ATOM	194	CG	ASN	A	56	-17.925	0.101	23.072	1.00	0.00	A	C
ATOM	195	OD1	ASN	A	56	-17.956	1.038	22.277	1.00	0.00	A	O
ATOM	196	ND2	ASN	A	56	-18.501	-1.101	22.803	1.00	0.00	A	N
ATOM	197	C	ASN	A	56	-16.070	1.819	25.867	1.00	0.00	A	C
ATOM	198	O	ASN	A	56	-16.704	2.614	26.559	1.00	0.00	A	O
ATOM	199	N	LEU	A	57	-14.977	1.168	26.306	1.00	0.00	A	N
ATOM	200	CA	LEU	A	57	-14.454	1.248	27.634	1.00	0.00	A	C
ATOM	201	CB	LEU	A	57	-13.271	0.295	27.869	1.00	0.00	A	C
ATOM	202	CG	LEU	A	57	-13.689	-1.190	27.907	1.00	0.00	A	C
ATOM	203	CD2	LEU	A	57	-14.806	-1.416	28.940	1.00	0.00	A	C
ATOM	204	CD1	LEU	A	57	-12.482	-2.112	28.147	1.00	0.00	A	C
ATOM	205	C	LEU	A	57	-13.989	2.640	27.903	1.00	0.00	A	C
ATOM	206	O	LEU	A	57	-14.155	3.125	29.014	1.00	0.00	A	O
ATOM	207	N	SER	A	58	-13.424	3.334	26.892	1.00	0.00	A	N
ATOM	208	CA	SER	A	58	-12.902	4.658	27.104	1.00	0.00	A	C
ATOM	209	CB	SER	A	58	-12.038	5.194	25.951	1.00	0.00	A	C
ATOM	210	OG	SER	A	58	-12.860	5.631	24.881	1.00	0.00	A	O
ATOM	211	C	SER	A	58	-14.008	5.646	27.315	1.00	0.00	A	C
ATOM	212	O	SER	A	58	-13.755	6.726	27.846	1.00	0.00	A	O
ATOM	213	N	LYS	A	59	-15.241	5.313	26.873	1.00	0.00	A	N
ATOM	214	CA	LYS	A	59	-16.381	6.171	27.034	1.00	0.00	A	C
ATOM	215	CB	LYS	A	59	-17.643	5.599	26.372	1.00	0.00	A	C
ATOM	216	CG	LYS	A	59	-18.754	6.636	26.207	1.00	0.00	A	C
ATOM	217	CD	LYS	A	59	-18.403	7.722	25.188	1.00	0.00	A	C
ATOM	218	CE	LYS	A	59	-18.824	7.384	23.756	1.00	0.00	A	C
ATOM	219	NZ	LYS	A	59	-18.002	6.274	23.228	1.00	0.00	A	N
ATOM	220	C	LYS	A	59	-16.666	6.323	28.501	1.00	0.00	A	C
ATOM	221	O	LYS	A	59	-16.991	7.416	28.962	1.00	0.00	A	O

443/514

Figure 7

ATOM	222	N	ILE	A	60	-16.625	5.204	29.251	1.00	0.00	A	N
ATOM	223	CA	ILE	A	60	-16.809	5.274	30.674	1.00	0.00	A	C
ATOM	224	CB	ILE	A	60	-17.464	4.043	31.241	1.00	0.00	A	C
ATOM	225	CG2	ILE	A	60	-16.654	2.804	30.842	1.00	0.00	A	C
ATOM	226	CG1	ILE	A	60	-17.721	4.214	32.747	1.00	0.00	A	C
ATOM	227	CD1	ILE	A	60	-18.681	3.173	33.324	1.00	0.00	A	C
ATOM	228	C	ILE	A	60	-15.576	5.645	31.471	1.00	0.00	A	C
ATOM	229	O	ILE	A	60	-15.631	6.476	32.374	1.00	0.00	A	O
ATOM	230	N	TYR	A	61	-14.431	4.997	31.194	1.00	0.00	A	N
ATOM	231	CA	TYR	A	61	-13.210	5.137	31.949	1.00	0.00	A	C
ATOM	232	CB	TYR	A	61	-12.307	3.902	31.866	1.00	0.00	A	C
ATOM	233	CG	TYR	A	61	-13.149	2.855	32.504	1.00	0.00	A	C
ATOM	234	CD1	TYR	A	61	-13.410	2.904	33.854	1.00	0.00	A	C
ATOM	235	CD2	TYR	A	61	-13.671	1.827	31.759	1.00	0.00	A	C
ATOM	236	CE1	TYR	A	61	-14.201	1.951	34.449	1.00	0.00	A	C
ATOM	237	CE2	TYR	A	61	-14.462	0.871	32.348	1.00	0.00	A	C
ATOM	238	CZ	TYR	A	61	-14.730	0.932	33.693	1.00	0.00	A	C
ATOM	239	OH	TYR	A	61	-15.544	-0.047	34.298	1.00	0.00	A	O
ATOM	240	C	TYR	A	61	-12.424	6.382	31.678	1.00	0.00	A	C
ATOM	241	O	TYR	A	61	-11.688	6.848	32.547	1.00	0.00	A	O
ATOM	242	N	GLY	A	62	-12.488	6.916	30.449	1.00	0.00	A	N
ATOM	243	CA	GLY	A	62	-11.700	8.073	30.152	1.00	0.00	A	C
ATOM	244	C	GLY	A	62	-10.620	7.652	29.208	1.00	0.00	A	C
ATOM	245	O	GLY	A	62	-10.564	6.512	28.750	1.00	0.00	A	O
ATOM	246	N	PRO	A	63	-9.801	8.607	28.874	1.00	0.00	A	N
ATOM	247	CA	PRO	A	63	-8.710	8.433	27.958	1.00	0.00	A	C
ATOM	248	CD	PRO	A	63	-10.121	10.001	29.114	1.00	0.00	A	C
ATOM	249	CB	PRO	A	63	-8.284	9.845	27.568	1.00	0.00	A	C
ATOM	250	CG	PRO	A	63	-8.865	10.754	28.663	1.00	0.00	A	C
ATOM	251	C	PRO	A	63	-7.605	7.578	28.495	1.00	0.00	A	C
ATOM	252	O	PRO	A	63	-6.788	7.125	27.698	1.00	0.00	A	O
ATOM	253	N	VAL	A	64	-7.490	7.383	29.822	1.00	0.00	A	N
ATOM	254	CA	VAL	A	64	-6.444	6.488	30.222	1.00	0.00	A	C
ATOM	255	CB	VAL	A	64	-5.182	7.210	30.659	1.00	0.00	A	C
ATOM	256	CG1	VAL	A	64	-5.454	8.218	31.784	1.00	0.00	A	C
ATOM	257	CG2	VAL	A	64	-4.115	6.165	30.994	1.00	0.00	A	C
ATOM	258	C	VAL	A	64	-6.977	5.522	31.253	1.00	0.00	A	C
ATOM	259	O	VAL	A	64	-7.252	5.869	32.399	1.00	0.00	A	O
ATOM	260	N	PHE	A	65	-7.135	4.238	30.871	1.00	0.00	A	N
ATOM	261	CA	PHE	A	65	-7.674	3.322	31.838	1.00	0.00	A	C
ATOM	262	CB	PHE	A	65	-9.168	2.984	31.659	1.00	0.00	A	C
ATOM	263	CG	PHE	A	65	-9.481	2.444	30.302	1.00	0.00	A	C
ATOM	264	CD1	PHE	A	65	-9.653	3.303	29.239	1.00	0.00	A	C
ATOM	265	CD2	PHE	A	65	-9.639	1.094	30.095	1.00	0.00	A	C
ATOM	266	CE1	PHE	A	65	-9.963	2.825	27.987	1.00	0.00	A	C
ATOM	267	CE2	PHE	A	65	-9.949	0.608	28.845	1.00	0.00	A	C
ATOM	268	CZ	PHE	A	65	-10.106	1.475	27.790	1.00	0.00	A	C
ATOM	269	C	PHE	A	65	-6.866	2.067	31.914	1.00	0.00	A	C
ATOM	270	O	PHE	A	65	-5.972	1.845	31.111	1.00	0.00	A	O
ATOM	271	N	THR	A	66	-7.141	1.223	32.927	1.00	0.00	A	N
ATOM	272	CA	THR	A	66	-6.422	0.006	33.167	1.00	0.00	A	C
ATOM	273	CB	THR	A	66	-5.995	-0.138	34.603	1.00	0.00	A	C
ATOM	274	CG1	THR	A	66	-5.183	0.964	34.982	1.00	0.00	A	O
ATOM	275	CG2	THR	A	66	-5.208	-1.448	34.777	1.00	0.00	A	C
ATOM	276	C	THR	A	66	-7.324	-1.150	32.845	1.00	0.00	A	C
ATOM	277	O	THR	A	66	-8.509	-1.157	33.178	1.00	0.00	A	O
ATOM	278	N	LEU	A	67	-6.762	-2.151	32.146	1.00	0.00	A	N
ATOM	279	CA	LEU	A	67	-7.427	-3.375	31.786	1.00	0.00	A	C
ATOM	280	CB	LEU	A	67	-7.656	-3.587	30.283	1.00	0.00	A	C
ATOM	281	CG	LEU	A	67	-8.919	-2.905	29.743	1.00	0.00	A	C
ATOM	282	CD2	LEU	A	67	-10.157	-3.372	30.513	1.00	0.00	A	C
ATOM	283	CD1	LEU	A	67	-9.090	-3.160	28.243	1.00	0.00	A	C
ATOM	284	C	LEU	A	67	-6.606	-4.528	32.243	1.00	0.00	A	C
ATOM	285	O	LEU	A	67	-5.397	-4.424	32.415	1.00	0.00	A	O
ATOM	286	N	TYR	A	68	-7.245	-5.690	32.450	1.00	0.00	A	N
ATOM	287	CA	TYR	A	68	-6.503	-6.817	32.949	1.00	0.00	A	C
ATOM	288	CB	TYR	A	68	-7.075	-7.378	34.265	1.00	0.00	A	C
ATOM	289	CG	TYR	A	68	-6.806	-6.423	35.378	1.00	0.00	A	C
ATOM	290	CD1	TYR	A	68	-7.560	-5.285	35.548	1.00	0.00	A	C
ATOM	291	CD2	TYR	A	68	-5.792	-6.686	36.271	1.00	0.00	A	C
ATOM	292	CE1	TYR	A	68	-7.305	-4.422	36.587	1.00	0.00	A	C
ATOM	293	CE2	TYR	A	68	-5.532	-5.826	37.312	1.00	0.00	A	C
ATOM	294	CZ	TYR	A	68	-6.286	-4.687	37.470	1.00	0.00	A	C
ATOM	295	OH	TYR	A	68	-6.022	-3.804	38.538	1.00	0.00	A	O
ATOM	296	C	TYR	A	68	-6.524	-7.953	31.974	1.00	0.00	A	C

444/514

Figure 7

ATOM	297	O	TYR	A	68	-7.580	-8.479	31.623	1.00	0.00	A	O
ATOM	298	N	PHE	A	69	-5.325	-8.357	31.506	1.00	0.00	A	N
ATOM	299	CA	PHE	A	69	-5.207	-9.559	30.742	1.00	0.00	A	C
ATOM	300	CB	PHE	A	69	-4.226	-9.461	29.556	1.00	0.00	A	C
ATOM	301	CG	PHE	A	69	-4.964	-8.705	28.502	1.00	0.00	A	C
ATOM	302	CD1	PHE	A	69	-5.786	-9.380	27.627	1.00	0.00	A	C
ATOM	303	CD2	PHE	A	69	-4.857	-7.336	28.395	1.00	0.00	A	C
ATOM	304	CE1	PHE	A	69	-6.483	-8.705	26.653	1.00	0.00	A	C
ATOM	305	CE2	PHE	A	69	-5.551	-6.655	27.422	1.00	0.00	A	C
ATOM	306	CZ	PHE	A	69	-6.364	-7.339	26.548	1.00	0.00	A	C
ATOM	307	C	PHE	A	69	-4.730	-10.557	31.736	1.00	0.00	A	C
ATOM	308	O	PHE	A	69	-3.532	-10.711	31.970	1.00	0.00	A	O
ATOM	309	N	GLY	A	70	-5.696	-11.274	32.339	1.00	0.00	A	N
ATOM	310	CA	GLY	A	70	-5.393	-12.180	33.398	1.00	0.00	A	C
ATOM	311	C	GLY	A	70	-5.002	-11.328	34.564	1.00	0.00	A	C
ATOM	312	O	GLY	A	70	-5.755	-10.453	34.990	1.00	0.00	A	O
ATOM	313	N	LEU	A	71	-3.839	-11.642	35.152	1.00	0.00	A	N
ATOM	314	CA	LEU	A	71	-3.237	-10.918	36.231	1.00	0.00	A	C
ATOM	315	CB	LEU	A	71	-2.191	-11.749	36.988	1.00	0.00	A	C
ATOM	316	CG	LEU	A	71	-2.814	-12.962	37.702	1.00	0.00	A	C
ATOM	317	CD2	LEU	A	71	-4.074	-12.557	38.483	1.00	0.00	A	C
ATOM	318	CD1	LEU	A	71	-1.781	-13.696	38.573	1.00	0.00	A	C
ATOM	319	C	LEU	A	71	-2.581	-9.661	35.745	1.00	0.00	A	C
ATOM	320	O	LEU	A	71	-2.369	-8.734	36.526	1.00	0.00	A	O
ATOM	321	N	GLU	A	72	-2.178	-9.632	34.456	1.00	0.00	A	N
ATOM	322	CA	GLU	A	72	-1.424	-8.537	33.912	1.00	0.00	A	C
ATOM	323	CB	GLU	A	72	-0.861	-8.824	32.509	1.00	0.00	A	C
ATOM	324	CG	GLU	A	72	0.202	-9.925	32.511	1.00	0.00	A	C
ATOM	325	CD	GLU	A	72	1.411	-9.409	33.280	1.00	0.00	A	C
ATOM	326	OE1	GLU	A	72	1.560	-8.163	33.382	1.00	0.00	A	O
ATOM	327	OE2	GLU	A	72	2.201	-10.256	33.776	1.00	0.00	A	O
ATOM	328	C	GLU	A	72	-2.249	-7.289	33.847	1.00	0.00	A	C
ATOM	329	O	GLU	A	72	-3.391	-7.293	33.394	1.00	0.00	A	O
ATOM	330	N	ARG	A	73	-1.658	-6.170	34.318	1.00	0.00	A	N
ATOM	331	CA	ARG	A	73	-2.316	-4.899	34.276	1.00	0.00	A	C
ATOM	332	CB	ARG	A	73	-2.040	-3.993	35.491	1.00	0.00	A	C
ATOM	333	CG	ARG	A	73	-2.563	-4.519	36.827	1.00	0.00	A	C
ATOM	334	CD	ARG	A	73	-1.723	-5.654	37.416	1.00	0.00	A	C
ATOM	335	NE	ARG	A	73	-0.351	-5.123	37.653	1.00	0.00	A	N
ATOM	336	CZ	ARG	A	73	0.585	-5.905	38.266	1.00	0.00	A	C
ATOM	337	NH1	ARG	A	73	0.262	-7.169	38.670	1.00	0.00	A	N
ATOM	338	NH2	ARG	A	73	1.845	-5.423	38.476	1.00	0.00	A	N
ATOM	339	C	ARG	A	73	-1.749	-4.193	33.088	1.00	0.00	A	C
ATOM	340	O	ARG	A	73	-0.536	-4.137	32.896	1.00	0.00	A	O
ATOM	341	N	MET	A	74	-2.643	-3.634	32.260	1.00	0.00	A	N
ATOM	342	CA	MET	A	74	-2.319	-3.016	31.015	1.00	0.00	A	C
ATOM	343	CB	MET	A	74	-3.022	-3.749	29.865	1.00	0.00	A	C
ATOM	344	CG	MET	A	74	-2.447	-3.466	28.489	1.00	0.00	A	C
ATOM	345	SD	MET	A	74	-0.911	-4.370	28.175	1.00	0.00	A	S
ATOM	346	CE	MET	A	74	-0.454	-3.226	26.854	1.00	0.00	A	C
ATOM	347	C	MET	A	74	-2.907	-1.635	31.031	1.00	0.00	A	C
ATOM	348	O	MET	A	74	-4.099	-1.477	31.274	1.00	0.00	A	O
ATOM	349	N	VAL	A	75	-2.110	-0.580	30.767	1.00	0.00	A	N
ATOM	350	CA	VAL	A	75	-2.745	0.706	30.722	1.00	0.00	A	C
ATOM	351	CB	VAL	A	75	-2.033	1.794	31.502	1.00	0.00	A	C
ATOM	352	CG1	VAL	A	75	-0.675	2.144	30.887	1.00	0.00	A	C
ATOM	353	CG2	VAL	A	75	-2.978	2.997	31.618	1.00	0.00	A	C
ATOM	354	C	VAL	A	75	-2.944	1.077	29.270	1.00	0.00	A	C
ATOM	355	O	VAL	A	75	-2.042	0.993	28.439	1.00	0.00	A	O
ATOM	356	N	VAL	A	76	-4.182	1.462	28.905	1.00	0.00	A	N
ATOM	357	CA	VAL	A	76	-4.526	1.817	27.552	1.00	0.00	A	C
ATOM	358	CB	VAL	A	76	-5.801	1.205	27.075	1.00	0.00	A	C
ATOM	359	CG1	VAL	A	76	-5.554	-0.280	26.812	1.00	0.00	A	C
ATOM	360	CG2	VAL	A	76	-6.849	1.424	28.165	1.00	0.00	A	C
ATOM	361	C	VAL	A	76	-4.662	3.311	27.410	1.00	0.00	A	C
ATOM	362	O	VAL	A	76	-5.079	4.004	28.337	1.00	0.00	A	O
ATOM	363	N	LEU	A	77	-4.275	3.849	26.224	1.00	0.00	A	N
ATOM	364	CA	LEU	A	77	-4.382	5.267	25.949	1.00	0.00	A	C
ATOM	365	CB	LEU	A	77	-3.036	5.898	25.564	1.00	0.00	A	C
ATOM	366	CG	LEU	A	77	-1.962	5.722	26.653	1.00	0.00	A	C
ATOM	367	CD2	LEU	A	77	-2.497	6.113	28.039	1.00	0.00	A	C
ATOM	368	CD1	LEU	A	77	-0.661	6.448	26.279	1.00	0.00	A	C
ATOM	369	C	LEU	A	77	-5.314	5.446	24.774	1.00	0.00	A	C
ATOM	370	O	LEU	A	77	-5.101	4.866	23.712	1.00	0.00	A	O
ATOM	371	N	HIS	A	78	-6.446	6.153	24.979	1.00	0.00	A	N

Figure 7

ATOM	372	CA	HIS	A	78	-7.440	6.341	23.951	1.00	0.00	A	C
ATOM	373	ND1	HIS	A	78	-10.654	7.040	22.868	1.00	0.00	A	N
ATOM	374	CG	HIS	A	78	-9.928	6.075	23.530	1.00	0.00	A	C
ATOM	375	CB	HIS	A	78	-8.858	6.347	24.545	1.00	0.00	A	C
ATOM	376	NE2	HIS	A	78	-11.404	5.075	22.146	1.00	0.00	A	N
ATOM	377	CD2	HIS	A	78	-10.397	4.880	23.074	1.00	0.00	A	C
ATOM	378	CE1	HIS	A	78	-11.522	6.387	22.054	1.00	0.00	A	C
ATOM	379	C	HIS	A	78	-7.336	7.522	23.010	1.00	0.00	A	C
ATOM	380	O	HIS	A	78	-7.356	7.359	21.799	1.00	0.00	A	O
ATOM	381	N	GLY	A	79	-7.199	8.771	23.487	1.00	0.00	A	N
ATOM	382	CA	GLY	A	79	-7.415	9.817	22.511	1.00	0.00	A	C
ATOM	383	C	GLY	A	79	-6.165	10.200	21.799	1.00	0.00	A	C
ATOM	384	O	GLY	A	79	-5.089	9.682	22.081	1.00	0.00	A	O
ATOM	385	N	TYR	A	80	-6.318	11.142	20.838	1.00	0.00	A	N
ATOM	386	CA	TYR	A	80	-5.232	11.723	20.102	1.00	0.00	A	C
ATOM	387	CB	TYR	A	80	-5.702	12.729	19.017	1.00	0.00	A	C
ATOM	388	CG	TYR	A	80	-4.528	13.514	18.511	1.00	0.00	A	C
ATOM	389	CD1	TYR	A	80	-3.592	12.935	17.682	1.00	0.00	A	C
ATOM	390	CD2	TYR	A	80	-4.370	14.843	18.854	1.00	0.00	A	C
ATOM	391	CE1	TYR	A	80	-2.511	13.659	17.231	1.00	0.00	A	C
ATOM	392	CE2	TYR	A	80	-3.293	15.571	18.406	1.00	0.00	A	C
ATOM	393	CZ	TYR	A	80	-2.363	14.979	17.588	1.00	0.00	A	C
ATOM	394	OH	TYR	A	80	-1.256	15.722	17.126	1.00	0.00	A	O
ATOM	395	C	TYR	A	80	-4.394	12.466	21.090	1.00	0.00	A	C
ATOM	396	O	TYR	A	80	-3.171	12.436	21.005	1.00	0.00	A	O
ATOM	397	N	GLU	A	81	-5.040	13.165	22.043	1.00	0.00	A	N
ATOM	398	CA	GLU	A	81	-4.335	13.948	23.021	1.00	0.00	A	C
ATOM	399	CB	GLU	A	81	-5.272	14.800	23.894	1.00	0.00	A	C
ATOM	400	CG	GLU	A	81	-5.946	15.928	23.113	1.00	0.00	A	C
ATOM	401	CD	GLU	A	81	-4.858	16.889	22.652	1.00	0.00	A	C
ATOM	402	OE1	GLU	A	81	-3.837	17.019	23.378	1.00	0.00	A	O
ATOM	403	OE2	GLU	A	81	-5.036	17.505	21.568	1.00	0.00	A	O
ATOM	404	C	GLU	A	81	-3.525	13.079	23.939	1.00	0.00	A	C
ATOM	405	O	GLU	A	81	-2.369	13.394	24.223	1.00	0.00	A	O
ATOM	406	N	VAL	A	82	-4.104	11.965	24.422	1.00	0.00	A	N
ATOM	407	CA	VAL	A	82	-3.402	11.096	25.328	1.00	0.00	A	C
ATOM	408	CB	VAL	A	82	-4.313	10.121	26.009	1.00	0.00	A	C
ATOM	409	CG1	VAL	A	82	-3.501	9.067	26.781	1.00	0.00	A	C
ATOM	410	CG2	VAL	A	82	-5.192	10.974	26.932	1.00	0.00	A	C
ATOM	411	C	VAL	A	82	-2.271	10.382	24.638	1.00	0.00	A	C
ATOM	412	O	VAL	A	82	-1.186	10.268	25.209	1.00	0.00	A	O
ATOM	413	N	VAL	A	83	-2.499	9.901	23.394	1.00	0.00	A	N
ATOM	414	CA	VAL	A	83	-1.509	9.189	22.622	1.00	0.00	A	C
ATOM	415	CB	VAL	A	83	-2.066	8.617	21.339	1.00	0.00	A	C
ATOM	416	CG1	VAL	A	83	-0.923	8.119	20.435	1.00	0.00	A	C
ATOM	417	CG2	VAL	A	83	-3.029	7.474	21.711	1.00	0.00	A	C
ATOM	418	C	VAL	A	83	-0.371	10.112	22.299	1.00	0.00	A	C
ATOM	419	O	VAL	A	83	0.788	9.722	22.368	1.00	0.00	A	O
ATOM	420	N	LYS	A	84	-0.675	11.371	21.953	1.00	0.00	A	N
ATOM	421	CA	LYS	A	84	0.293	12.370	21.601	1.00	0.00	A	C
ATOM	422	CB	LYS	A	84	-0.340	13.687	21.098	1.00	0.00	A	C
ATOM	423	CG	LYS	A	84	0.693	14.814	20.998	1.00	0.00	A	C
ATOM	424	CD	LYS	A	84	0.274	16.079	20.263	1.00	0.00	A	C
ATOM	425	CE	LYS	A	84	1.244	17.236	20.518	1.00	0.00	A	C
ATOM	426	NZ	LYS	A	84	2.627	16.720	20.633	1.00	0.00	A	N
ATOM	427	C	LYS	A	84	1.130	12.728	22.785	1.00	0.00	A	C
ATOM	428	O	LYS	A	84	2.342	12.889	22.663	1.00	0.00	A	O
ATOM	429	N	GLU	A	85	0.485	12.884	23.956	1.00	0.00	A	N
ATOM	430	CA	GLU	A	85	1.148	13.293	25.162	1.00	0.00	A	C
ATOM	431	CB	GLU	A	85	0.151	13.538	26.308	1.00	0.00	A	C
ATOM	432	CG	GLU	A	85	0.775	14.127	27.573	1.00	0.00	A	C
ATOM	433	CD	GLU	A	85	-0.348	14.339	28.579	1.00	0.00	A	C
ATOM	434	OE1	GLU	A	85	-1.529	14.096	28.208	1.00	0.00	A	O
ATOM	435	OE2	GLU	A	85	-0.042	14.746	29.730	1.00	0.00	A	O
ATOM	436	C	GLU	A	85	2.114	12.230	25.597	1.00	0.00	A	C
ATOM	437	O	GLU	A	85	3.236	12.531	26.002	1.00	0.00	A	O
ATOM	438	N	ALA	A	86	1.691	10.955	25.553	1.00	0.00	A	N
ATOM	439	CA	ALA	A	86	2.575	9.902	25.957	1.00	0.00	A	C
ATOM	440	CB	ALA	A	86	1.840	8.567	26.158	1.00	0.00	A	C
ATOM	441	C	ALA	A	86	3.680	9.650	24.968	1.00	0.00	A	C
ATOM	442	O	ALA	A	86	4.860	9.672	25.310	1.00	0.00	A	O
ATOM	443	N	LEU	A	87	3.315	9.433	23.693	1.00	0.00	A	N
ATOM	444	CA	LEU	A	87	4.232	9.049	22.654	1.00	0.00	A	C
ATOM	445	CB	LEU	A	87	3.547	8.577	21.353	1.00	0.00	A	C
ATOM	446	CG	LEU	A	87	3.033	7.117	21.383	1.00	0.00	A	C

Figure 7

ATOM	447	CD2	LEU	A	87	2.558	6.675	19.989	1.00	0.00	A	C
ATOM	448	CD1	LEU	A	87	1.974	6.874	22.469	1.00	0.00	A	C
ATOM	449	C	LEU	A	87	5.214	10.129	22.312	1.00	0.00	A	C
ATOM	450	O	LEU	A	87	6.383	9.839	22.069	1.00	0.00	A	O
ATOM	451	N	ILE	A	88	4.746	11.380	22.133	1.00	0.00	A	N
ATOM	452	CA	ILE	A	88	5.621	12.486	21.837	1.00	0.00	A	C
ATOM	453	CB	ILE	A	88	4.940	13.597	21.070	1.00	0.00	A	C
ATOM	454	CG2	ILE	A	88	5.910	14.791	21.050	1.00	0.00	A	C
ATOM	455	CG1	ILE	A	88	4.503	13.162	19.653	1.00	0.00	A	C
ATOM	456	CD1	ILE	A	88	3.221	12.330	19.569	1.00	0.00	A	C
ATOM	457	C	ILE	A	88	6.281	13.143	23.029	1.00	0.00	A	C
ATOM	458	O	ILE	A	88	7.506	13.135	23.141	1.00	0.00	A	O
ATOM	459	N	ASP	A	89	5.465	13.700	23.965	1.00	0.00	A	N
ATOM	460	CA	ASP	A	89	5.939	14.538	25.050	1.00	0.00	A	C
ATOM	461	CB	ASP	A	89	4.776	15.168	25.838	1.00	0.00	A	C
ATOM	462	CG	ASP	A	89	4.025	16.122	24.912	1.00	0.00	A	C
ATOM	463	OD1	ASP	A	89	4.579	16.475	23.837	1.00	0.00	A	O
ATOM	464	OD2	ASP	A	89	2.878	16.505	25.269	1.00	0.00	A	O
ATOM	465	C	ASP	A	89	6.762	13.745	26.019	1.00	0.00	A	C
ATOM	466	O	ASP	A	89	7.883	14.108	26.372	1.00	0.00	A	O
ATOM	467	N	LEU	A	90	6.169	12.633	26.460	1.00	0.00	A	N
ATOM	468	CA	LEU	A	90	6.653	11.607	27.333	1.00	0.00	A	C
ATOM	469	CB	LEU	A	90	5.572	10.852	28.126	1.00	0.00	A	C
ATOM	470	CG	LEU	A	90	5.007	11.655	29.316	1.00	0.00	A	C
ATOM	471	CD2	LEU	A	90	4.181	12.873	28.880	1.00	0.00	A	C
ATOM	472	CD1	LEU	A	90	6.129	12.015	30.300	1.00	0.00	A	C
ATOM	473	C	LEU	A	90	7.473	10.607	26.595	1.00	0.00	A	C
ATOM	474	O	LEU	A	90	7.681	9.535	27.152	1.00	0.00	A	O
ATOM	475	N	GLY	A	91	7.864	10.894	25.327	1.00	0.00	A	N
ATOM	476	CA	GLY	A	91	8.408	9.990	24.339	1.00	0.00	A	C
ATOM	477	C	GLY	A	91	9.508	9.081	24.819	1.00	0.00	A	C
ATOM	478	O	GLY	A	91	9.469	7.905	24.465	1.00	0.00	A	O
ATOM	479	N	GLU	A	92	10.486	9.560	25.615	1.00	0.00	A	N
ATOM	480	CA	GLU	A	92	11.532	8.689	26.097	1.00	0.00	A	C
ATOM	481	CB	GLU	A	92	12.683	9.443	26.780	1.00	0.00	A	C
ATOM	482	CG	GLU	A	92	13.791	8.513	27.279	1.00	0.00	A	C
ATOM	483	CD	GLU	A	92	14.459	7.869	26.071	1.00	0.00	A	C
ATOM	484	OE1	GLU	A	92	14.761	8.603	25.095	1.00	0.00	A	O
ATOM	485	OE2	GLU	A	92	14.678	6.630	26.117	1.00	0.00	A	O
ATOM	486	C	GLU	A	92	10.984	7.689	27.081	1.00	0.00	A	C
ATOM	487	O	GLU	A	92	11.342	6.513	27.043	1.00	0.00	A	O
ATOM	488	N	GLU	A	93	10.079	8.145	27.970	1.00	0.00	A	N
ATOM	489	CA	GLU	A	93	9.457	7.327	28.976	1.00	0.00	A	C
ATOM	490	CB	GLU	A	93	8.568	8.109	29.958	1.00	0.00	A	C
ATOM	491	CG	GLU	A	93	9.350	8.868	31.032	1.00	0.00	A	C
ATOM	492	CD	GLU	A	93	9.948	10.119	30.413	1.00	0.00	A	C
ATOM	493	OE1	GLU	A	93	9.313	10.685	29.483	1.00	0.00	A	O
ATOM	494	OE2	GLU	A	93	11.054	10.527	30.863	1.00	0.00	A	O
ATOM	495	C	GLU	A	93	8.609	6.264	28.337	1.00	0.00	A	C
ATOM	496	O	GLU	A	93	8.472	5.175	28.869	1.00	0.00	A	O
ATOM	497	N	PHE	A	94	7.946	6.563	27.218	1.00	0.00	A	N
ATOM	498	CA	PHE	A	94	7.115	5.645	26.481	1.00	0.00	A	C
ATOM	499	CB	PHE	A	94	5.918	6.310	25.784	1.00	0.00	A	C
ATOM	500	CG	PHE	A	94	4.907	6.497	26.866	1.00	0.00	A	C
ATOM	501	CD1	PHE	A	94	4.018	5.487	27.158	1.00	0.00	A	C
ATOM	502	CD2	PHE	A	94	4.857	7.658	27.603	1.00	0.00	A	C
ATOM	503	CE1	PHE	A	94	3.082	5.634	28.154	1.00	0.00	A	C
ATOM	504	CE2	PHE	A	94	3.921	7.812	28.601	1.00	0.00	A	C
ATOM	505	CZ	PHE	A	94	3.032	6.801	28.879	1.00	0.00	A	C
ATOM	506	C	PHE	A	94	7.864	4.777	25.504	1.00	0.00	A	C
ATOM	507	O	PHE	A	94	7.247	3.986	24.792	1.00	0.00	A	O
ATOM	508	N	SER	A	95	9.183	4.987	25.332	1.00	0.00	A	N
ATOM	509	CA	SER	A	95	9.995	4.331	24.333	1.00	0.00	A	C
ATOM	510	CB	SER	A	95	11.481	4.731	24.390	1.00	0.00	A	C
ATOM	511	OG	SER	A	95	11.667	6.110	24.140	1.00	0.00	A	O
ATOM	512	C	SER	A	95	10.094	2.840	24.494	1.00	0.00	A	C
ATOM	513	O	SER	A	95	10.570	2.179	23.577	1.00	0.00	A	O
ATOM	514	N	GLY	A	96	9.721	2.258	25.646	1.00	0.00	A	N
ATOM	515	CA	GLY	A	96	9.954	0.848	25.822	1.00	0.00	A	C
ATOM	516	C	GLY	A	96	9.002	0.003	25.026	1.00	0.00	A	C
ATOM	517	O	GLY	A	96	7.893	0.418	24.694	1.00	0.00	A	O
ATOM	518	N	ARG	A	97	9.533	-1.205	24.696	1.00	40.78	A	N
ATOM	519	CA	ARG	A	97	8.697	-2.186	24.002	1.00	39.50	A	C
ATOM	520	C	ARG	A	97	8.108	-3.142	25.025	1.00	40.44	A	C
ATOM	521	O	ARG	A	97	8.811	-3.605	25.924	1.00	42.20	A	O

447/514

Figure 7

ATOM	522	CB	ARG	A	97	9.519	-2.976	22.977	1.00	38.53	A	C
ATOM	523	CG	ARG	A	97	8.826	-4.220	22.412	1.00	37.38	A	C
ATOM	524	CD	ARG	A	97	7.663	-3.882	21.499	1.00	38.78	A	C
ATOM	525	NE	ARG	A	97	8.070	-3.133	20.307	1.00	39.65	A	N
ATOM	526	CZ	ARG	A	97	7.351	-2.147	19.778	1.00	38.34	A	C
ATOM	527	NH1	ARG	A	97	7.774	-1.508	18.696	1.00	36.73	A	N
ATOM	528	NH2	ARG	A	97	6.203	-1.796	20.345	1.00	36.49	A	N
ATOM	529	N	GLY	A	98	6.795	-3.485	24.915	1.00	0.00	A	N
ATOM	530	CA	GLY	A	98	6.203	-4.361	25.885	1.00	0.00	A	C
ATOM	531	C	GLY	A	98	5.959	-5.684	25.234	1.00	0.00	A	C
ATOM	532	O	GLY	A	98	5.614	-5.754	24.056	1.00	0.00	A	O
ATOM	533	N	HIS	A	99	6.116	-6.782	25.998	1.00	0.00	A	N
ATOM	534	CA	HIS	A	99	5.924	-8.070	25.408	1.00	0.00	A	C
ATOM	535	ND1	HIS	A	99	7.672	-9.674	27.778	1.00	0.00	A	N
ATOM	536	CG	HIS	A	99	7.955	-8.869	26.692	1.00	0.00	A	C
ATOM	537	CB	HIS	A	99	7.213	-8.911	25.389	1.00	0.00	A	C
ATOM	538	NE2	HIS	A	99	9.372	-8.371	28.377	1.00	0.00	A	N
ATOM	539	CD2	HIS	A	99	8.993	-8.082	27.077	1.00	0.00	A	C
ATOM	540	CE1	HIS	A	99	8.549	-9.334	28.754	1.00	0.00	A	C
ATOM	541	C	HIS	A	99	4.866	-8.835	26.152	1.00	0.00	A	C
ATOM	542	O	HIS	A	99	4.830	-8.846	27.382	1.00	0.00	A	O
ATOM	543	N	PHE	A	100	3.965	-9.492	25.386	1.00	0.00	A	N
ATOM	544	CA	PHE	A	100	2.893	-10.315	25.896	1.00	0.00	A	C
ATOM	545	CB	PHE	A	100	1.693	-10.481	24.926	1.00	0.00	A	C
ATOM	546	CG	PHE	A	100	0.800	-9.284	24.926	1.00	0.00	A	C
ATOM	547	CD1	PHE	A	100	0.048	-8.960	26.034	1.00	0.00	A	C
ATOM	548	CD2	PHE	A	100	0.665	-8.514	23.799	1.00	0.00	A	C
ATOM	549	CE1	PHE	A	100	-0.792	-7.870	26.038	1.00	0.00	A	C
ATOM	550	CE2	PHE	A	100	-0.176	-7.424	23.801	1.00	0.00	A	C
ATOM	551	CZ	PHE	A	100	-0.904	-7.092	24.915	1.00	0.00	A	C
ATOM	552	C	PHE	A	100	3.455	-11.698	26.106	1.00	0.00	A	C
ATOM	553	O	PHE	A	100	4.566	-11.971	25.660	1.00	0.00	A	O
ATOM	554	N	PRO	A	101	2.741	-12.567	26.799	1.00	0.00	A	N
ATOM	555	CA	PRO	A	101	3.212	-13.909	27.070	1.00	0.00	A	C
ATOM	556	CD	PRO	A	101	1.831	-12.114	27.847	1.00	0.00	A	C
ATOM	557	CB	PRO	A	101	2.202	-14.512	28.047	1.00	0.00	A	C
ATOM	558	CG	PRO	A	101	1.691	-13.288	28.830	1.00	0.00	A	C
ATOM	559	C	PRO	A	101	3.573	-14.818	25.920	1.00	0.00	A	C
ATOM	560	O	PRO	A	101	4.632	-15.444	26.011	1.00	0.00	A	O
ATOM	561	N	LEU	A	102	2.749	-14.907	24.850	1.00	0.00	A	N
ATOM	562	CA	LEU	A	102	3.055	-15.782	23.742	1.00	0.00	A	C
ATOM	563	CB	LEU	A	102	1.996	-15.846	22.641	1.00	0.00	A	C
ATOM	564	CG	LEU	A	102	2.398	-16.808	21.508	1.00	0.00	A	C
ATOM	565	CD2	LEU	A	102	1.443	-16.717	20.314	1.00	0.00	A	C
ATOM	566	CD1	LEU	A	102	2.543	-18.241	22.033	1.00	0.00	A	C
ATOM	567	C	LEU	A	102	4.253	-15.290	23.008	1.00	0.00	A	C
ATOM	568	O	LEU	A	102	5.152	-16.045	22.655	1.00	0.00	A	O
ATOM	569	N	ALA	A	103	4.291	-13.974	22.808	1.00	0.00	A	N
ATOM	570	CA	ALA	A	103	5.303	-13.267	22.080	1.00	0.00	A	C
ATOM	571	CB	ALA	A	103	4.998	-11.765	21.920	1.00	0.00	A	C
ATOM	572	C	ALA	A	103	6.637	-13.375	22.765	1.00	0.00	A	C
ATOM	573	O	ALA	A	103	7.632	-12.955	22.192	1.00	0.00	A	O
ATOM	574	N	GLU	A	104	6.673	-13.671	24.077	1.00	0.00	A	N
ATOM	575	CA	GLU	A	104	7.898	-13.871	24.803	1.00	0.00	A	C
ATOM	576	CB	GLU	A	104	7.698	-13.699	26.320	1.00	0.00	A	C
ATOM	577	CG	GLU	A	104	8.989	-13.795	27.139	1.00	0.00	A	C
ATOM	578	CD	GLU	A	104	9.673	-12.430	27.153	1.00	0.00	A	C
ATOM	579	OE1	GLU	A	104	9.613	-11.719	26.116	1.00	0.00	A	O
ATOM	580	OE2	GLU	A	104	10.263	-12.083	28.210	1.00	0.00	A	O
ATOM	581	C	GLU	A	104	8.470	-15.236	24.589	1.00	0.00	A	C
ATOM	582	O	GLU	A	104	9.676	-15.384	24.392	1.00	0.00	A	O
ATOM	583	N	ARG	A	105	7.598	-16.265	24.654	1.00	0.00	A	N
ATOM	584	CA	ARG	A	105	7.982	-17.645	24.542	1.00	0.00	A	C
ATOM	585	CB	ARG	A	105	6.809	-18.610	24.768	1.00	0.00	A	C
ATOM	586	CG	ARG	A	105	6.391	-18.797	26.226	1.00	0.00	A	C
ATOM	587	CD	ARG	A	105	7.484	-19.461	27.065	1.00	0.00	A	C
ATOM	588	NE	ARG	A	105	6.846	-20.546	27.865	1.00	0.00	A	N
ATOM	589	CZ	ARG	A	105	6.241	-20.279	29.062	1.00	0.00	A	C
ATOM	590	NH1	ARG	A	105	6.083	-18.985	29.464	1.00	0.00	A	N
ATOM	591	NH2	ARG	A	105	5.769	-21.296	29.834	1.00	0.00	A	N
ATOM	592	C	ARG	A	105	8.486	-17.898	23.161	1.00	0.00	A	C
ATOM	593	O	ARG	A	105	9.434	-18.652	22.951	1.00	0.00	A	O
ATOM	594	N	ALA	A	106	7.829	-17.269	22.179	1.00	0.00	A	N
ATOM	595	CA	ALA	A	106	8.154	-17.427	20.798	1.00	0.00	A	C
ATOM	596	CB	ALA	A	106	7.132	-16.748	19.870	1.00	0.00	A	C

448/514

Figure 7

ATOM	597	C	ALA	A	106	9.508	-16.860	20.474	1.00	0.00	A	C
ATOM	598	O	ALA	A	106	10.203	-17.382	19.605	1.00	0.00	A	O
ATOM	599	N	ASN	A	107	9.931	-15.764	21.133	1.00	0.00	A	N
ATOM	600	CA	ASN	A	107	11.131	-15.121	20.662	1.00	0.00	A	C
ATOM	601	CB	ASN	A	107	11.100	-13.584	20.726	1.00	0.00	A	C
ATOM	602	CG	ASN	A	107	10.189	-13.037	19.642	1.00	0.00	A	C
ATOM	603	OD1	ASN	A	107	8.963	-13.110	19.694	1.00	0.00	A	O
ATOM	604	ND2	ASN	A	107	10.827	-12.474	18.589	1.00	0.00	A	N
ATOM	605	C	ASN	A	107	12.370	-15.502	21.406	1.00	0.00	A	C
ATOM	606	O	ASN	A	107	12.492	-15.300	22.614	1.00	0.00	A	O
ATOM	607	N	ARG	A	108	13.354	-16.041	20.659	1.00	0.00	A	N
ATOM	608	CA	ARG	A	108	14.644	-16.302	21.216	1.00	0.00	A	C
ATOM	609	CB	ARG	A	108	15.211	-17.694	20.889	1.00	0.00	A	C
ATOM	610	CG	ARG	A	108	14.448	-18.881	21.479	1.00	0.00	A	C
ATOM	611	CD	ARG	A	108	14.793	-19.195	22.935	1.00	0.00	A	C
ATOM	612	NE	ARG	A	108	14.300	-20.573	23.214	1.00	0.00	A	N
ATOM	613	CZ	ARG	A	108	12.985	-20.777	23.511	1.00	0.00	A	C
ATOM	614	NH1	ARG	A	108	12.133	-19.713	23.541	1.00	0.00	A	N
ATOM	615	NH2	ARG	A	108	12.522	-22.036	23.766	1.00	0.00	A	N
ATOM	616	C	ARG	A	108	15.555	-15.342	20.511	1.00	0.00	A	C
ATOM	617	O	ARG	A	108	15.874	-15.538	19.340	1.00	0.00	A	O
ATOM	618	N	GLY	A	109	15.994	-14.268	21.192	1.00	0.00	A	N
ATOM	619	CA	GLY	A	109	16.907	-13.357	20.553	1.00	0.00	A	C
ATOM	620	C	GLY	A	109	16.183	-12.117	20.113	1.00	0.00	A	C
ATOM	621	O	GLY	A	109	15.189	-12.184	19.389	1.00	0.00	A	O
ATOM	622	N	PHE	A	110	16.718	-10.931	20.493	1.00	0.00	A	N
ATOM	623	CA	PHE	A	110	16.026	-9.701	20.202	1.00	0.00	A	C
ATOM	624	CB	PHE	A	110	15.797	-8.838	21.457	1.00	0.00	A	C
ATOM	625	CG	PHE	A	110	15.078	-9.671	22.463	1.00	0.00	A	C
ATOM	626	CD1	PHE	A	110	13.974	-10.407	22.105	1.00	0.00	A	C
ATOM	627	CD2	PHE	A	110	15.493	-9.706	23.776	1.00	0.00	A	C
ATOM	628	CE1	PHE	A	110	13.302	-11.172	23.026	1.00	0.00	A	C
ATOM	629	CE2	PHE	A	110	14.825	-10.470	24.706	1.00	0.00	A	C
ATOM	630	CZ	PHE	A	110	13.728	-11.207	24.331	1.00	0.00	A	C
ATOM	631	C	PHE	A	110	16.818	-8.849	19.253	1.00	0.00	A	C
ATOM	632	O	PHE	A	110	17.994	-8.574	19.494	1.00	0.00	A	O
ATOM	633	N	GLY	A	111	16.268	-8.567	18.948	1.00	0.00	A	N
ATOM	634	CA	GLY	A	111	16.952	-7.624	17.208	1.00	0.00	A	C
ATOM	635	C	GLY	A	111	16.544	-6.188	17.386	1.00	0.00	A	C
ATOM	636	O	GLY	A	111	17.159	-5.420	18.121	1.00	0.00	A	O
ATOM	637	N	ILE	A	112	15.514	-5.782	16.596	1.00	0.00	A	N
ATOM	638	CA	ILE	A	112	14.920	-4.471	16.621	1.00	0.00	A	C
ATOM	639	CB	ILE	A	112	14.906	-3.827	15.256	1.00	0.00	A	C
ATOM	640	CG2	ILE	A	112	14.156	-4.720	14.253	1.00	0.00	A	C
ATOM	641	CG1	ILE	A	112	14.401	-2.379	15.357	1.00	0.00	A	C
ATOM	642	CD1	ILE	A	112	14.686	-1.552	14.104	1.00	0.00	A	C
ATOM	643	C	ILE	A	112	13.576	-4.327	17.280	1.00	0.00	A	C
ATOM	644	O	ILE	A	112	13.355	-3.398	18.054	1.00	0.00	A	O
ATOM	645	N	VAL	A	113	12.626	-5.233	16.936	1.00	0.00	A	N
ATOM	646	CA	VAL	A	113	11.240	-5.077	17.309	1.00	0.00	A	C
ATOM	647	CB	VAL	A	113	10.357	-6.088	16.632	1.00	0.00	A	C
ATOM	648	CG1	VAL	A	113	8.916	-5.932	17.148	1.00	0.00	A	C
ATOM	649	CG2	VAL	A	113	10.493	-5.895	15.113	1.00	0.00	A	C
ATOM	650	C	VAL	A	113	11.026	-5.197	18.784	1.00	0.00	A	C
ATOM	651	O	VAL	A	113	10.310	-4.405	19.391	1.00	0.00	A	O
ATOM	652	N	PHE	A	114	11.592	-6.260	19.365	1.00	0.00	A	N
ATOM	653	CA	PHE	A	114	11.511	-6.640	20.742	1.00	0.00	A	C
ATOM	654	CB	PHE	A	114	11.464	-8.170	20.892	1.00	0.00	A	C
ATOM	655	CG	PHE	A	114	10.161	-8.576	20.282	1.00	0.00	A	C
ATOM	656	CD1	PHE	A	114	8.977	-8.079	20.770	1.00	0.00	A	C
ATOM	657	CD2	PHE	A	114	10.108	-9.438	19.209	1.00	0.00	A	C
ATOM	658	CE1	PHE	A	114	7.773	-8.441	20.213	1.00	0.00	A	C
ATOM	659	CE2	PHE	A	114	8.910	-9.802	18.644	1.00	0.00	A	C
ATOM	660	CZ	PHE	A	114	7.735	-9.299	19.141	1.00	0.00	A	C
ATOM	661	C	PHE	A	114	12.568	-6.037	21.619	1.00	0.00	A	C
ATOM	662	O	PHE	A	114	12.466	-6.131	22.839	1.00	0.00	A	O
ATOM	663	N	SER	A	115	13.664	-5.507	21.041	1.00	0.00	A	N
ATOM	664	CA	SER	A	115	14.782	-5.028	21.817	1.00	0.00	A	C
ATOM	665	CB	SER	A	115	16.035	-4.720	20.975	1.00	0.00	A	C
ATOM	666	OG	SER	A	115	15.744	-3.754	19.979	1.00	0.00	A	O
ATOM	667	C	SER	A	115	14.429	-3.821	22.630	1.00	0.00	A	C
ATOM	668	O	SER	A	115	13.395	-3.195	22.420	1.00	0.00	A	O
ATOM	669	N	ASN	A	116	15.272	-3.525	23.646	1.00	0.00	A	N
ATOM	670	CA	ASN	A	116	15.088	-2.399	24.518	1.00	0.00	A	C
ATOM	671	CB	ASN	A	116	14.391	-2.754	25.842	1.00	0.00	A	C

Figure 7

ATOM	672	CG	ASN	A	116	12.925	-3.032	25.550	1.00	0.00	A	C
ATOM	673	OD1	ASN	A	116	12.203	-2.150	25.092	1.00	0.00	A	O
ATOM	674	ND2	ASN	A	116	12.473	-4.287	25.811	1.00	0.00	A	N
ATOM	675	C	ASN	A	116	16.457	-1.908	24.879	1.00	0.00	A	C
ATOM	676	O	ASN	A	116	17.454	-2.549	24.545	1.00	0.00	A	O
ATOM	677	N	GLY	A	117	16.521	-0.723	25.529	1.00	0.00	A	N
ATOM	678	CA	GLY	A	117	17.746	-0.176	26.049	1.00	0.00	A	C
ATOM	679	C	GLY	A	117	18.704	0.190	24.955	1.00	0.00	A	C
ATOM	680	O	GLY	A	117	18.319	0.552	23.844	1.00	0.00	A	O
ATOM	681	N	LYS	A	118	20.005	0.061	25.286	1.00	0.00	A	N
ATOM	682	CA	LYS	A	118	21.124	0.370	24.448	1.00	0.00	A	C
ATOM	683	CB	LYS	A	118	22.465	0.207	25.198	1.00	0.00	A	C
ATOM	684	CG	LYS	A	118	22.390	-0.732	26.411	1.00	0.00	A	C
ATOM	685	CD	LYS	A	118	22.078	-2.199	26.111	1.00	0.00	A	C
ATOM	686	CE	LYS	A	118	21.726	-3.020	27.352	1.00	0.00	A	C
ATOM	687	NZ	LYS	A	118	20.462	-2.528	27.949	1.00	0.00	A	N
ATOM	688	C	LYS	A	118	21.116	-0.478	23.217	1.00	0.00	A	C
ATOM	689	O	LYS	A	118	21.499	0.000	22.148	1.00	0.00	A	O
ATOM	690	N	ARG	A	119	20.682	-1.749	23.351	1.00	0.00	A	N
ATOM	691	CA	ARG	A	119	20.624	-2.722	22.292	1.00	0.00	A	C
ATOM	692	CB	ARG	A	119	20.006	-4.042	22.785	1.00	0.00	A	C
ATOM	693	CG	ARG	A	119	19.653	-5.019	21.663	1.00	0.00	A	C
ATOM	694	CD	ARG	A	119	20.737	-6.026	21.291	1.00	0.00	A	C
ATOM	695	NE	ARG	A	119	20.171	-7.377	21.581	1.00	0.00	A	N
ATOM	696	CZ	ARG	A	119	20.307	-7.937	22.819	1.00	0.00	A	C
ATOM	697	NH1	ARG	A	119	20.971	-7.265	23.800	1.00	0.00	A	N
ATOM	698	NH2	ARG	A	119	19.778	-9.172	23.072	1.00	0.00	A	N
ATOM	699	C	ARG	A	119	19.688	-2.231	21.236	1.00	0.00	A	C
ATOM	700	O	ARG	A	119	20.028	-2.211	20.054	1.00	0.00	A	O
ATOM	701	N	TRP	A	120	18.497	-1.787	21.670	1.00	0.00	A	N
ATOM	702	CA	TRP	A	120	17.473	-1.314	20.788	1.00	0.00	A	C
ATOM	703	CB	TRP	A	120	16.143	-1.044	21.516	1.00	0.00	A	C
ATOM	704	CG	TRP	A	120	15.074	-0.432	20.642	1.00	0.00	A	C
ATOM	705	CD	TRP	A	120	14.578	0.907	20.800	1.00	0.00	A	C
ATOM	706	CD1	TRP	A	120	14.375	-0.981	19.608	1.00	0.00	A	C
ATOM	707	NE1	TRP	A	120	13.486	-0.065	19.104	1.00	0.00	A	N
ATOM	708	CE2	TRP	A	120	13.595	1.102	19.830	1.00	0.00	A	C
ATOM	709	CE3	TRP	A	120	14.911	1.892	21.684	1.00	0.00	A	C
ATOM	710	CZ2	TRP	A	120	12.930	2.290	19.727	1.00	0.00	A	C
ATOM	711	CZ3	TRP	A	120	14.240	3.089	21.579	1.00	0.00	A	C
ATOM	712	CH2	TRP	A	120	13.269	3.284	20.619	1.00	0.00	A	C
ATOM	713	C	TRP	A	120	17.894	-0.053	20.126	1.00	0.00	A	C
ATOM	714	O	TRP	A	120	17.811	0.016	18.904	1.00	0.00	A	O
ATOM	715	N	LYS	A	121	18.410	0.916	20.917	1.00	0.00	A	N
ATOM	716	CA	LYS	A	121	18.771	2.247	20.495	1.00	0.00	A	C
ATOM	717	CB	LYS	A	121	19.414	3.068	21.624	1.00	0.00	A	C
ATOM	718	CG	LYS	A	121	18.453	3.592	22.692	1.00	0.00	A	C
ATOM	719	CD	LYS	A	121	17.509	4.685	22.184	1.00	0.00	A	C
ATOM	720	CE	LYS	A	121	16.741	5.389	23.305	1.00	0.00	A	C
ATOM	721	NZ	LYS	A	121	16.110	6.627	22.791	1.00	0.00	A	N
ATOM	722	C	LYS	A	121	19.809	2.194	19.412	1.00	0.00	A	C
ATOM	723	O	LYS	A	121	19.677	2.874	18.396	1.00	0.00	A	O
ATOM	724	N	GLU	A	122	20.851	1.362	19.595	1.00	0.00	A	N
ATOM	725	CA	GLU	A	122	21.910	1.287	18.625	1.00	0.00	A	C
ATOM	726	CB	GLU	A	122	23.131	0.507	19.131	1.00	0.00	A	C
ATOM	727	CG	GLU	A	122	23.903	1.255	20.222	1.00	0.00	A	C
ATOM	728	CD	GLU	A	122	25.083	0.396	20.642	1.00	0.00	A	C
ATOM	729	OE1	GLU	A	122	25.813	-0.091	19.735	1.00	0.00	A	O
ATOM	730	OE2	GLU	A	122	25.280	0.226	21.874	1.00	0.00	A	O
ATOM	731	C	GLU	A	122	21.486	0.660	17.330	1.00	0.00	A	C
ATOM	732	O	GLU	A	122	21.734	1.229	16.268	1.00	0.00	A	O
ATOM	733	N	ILE	A	123	20.809	-0.505	17.400	1.00	0.00	A	N
ATOM	734	CA	ILE	A	123	20.409	-1.296	16.258	1.00	0.00	A	C
ATOM	735	CB	ILE	A	123	19.793	-2.602	16.687	1.00	0.00	A	C
ATOM	736	CG2	ILE	A	123	19.188	-3.314	15.464	1.00	0.00	A	C
ATOM	737	CG1	ILE	A	123	20.847	-3.462	17.408	1.00	0.00	A	C
ATOM	738	CD1	ILE	A	123	22.019	-3.884	16.531	1.00	0.00	A	C
ATOM	739	C	ILE	A	123	19.420	-0.531	15.419	1.00	0.00	A	C
ATOM	740	O	ILE	A	123	19.468	-0.571	14.191	1.00	0.00	A	O
ATOM	741	N	ARG	A	124	18.508	0.190	16.094	1.00	0.00	A	N
ATOM	742	CA	ARG	A	124	17.465	0.999	15.519	1.00	0.00	A	C
ATOM	743	CB	ARG	A	124	16.695	1.708	16.662	1.00	0.00	A	C
ATOM	744	CG	ARG	A	124	15.363	2.419	16.433	1.00	0.00	A	C
ATOM	745	CD	ARG	A	124	14.797	2.383	15.032	1.00	0.00	A	C
ATOM	746	NE	ARG	A	124	13.985	3.627	14.874	1.00	0.00	A	N

Figure 7

ATOM	747	CZ	ARG A 124	12.656	3.659	15.177	1.00	0.00	A	C
ATOM	748	NH1	ARG A 124	12.010	2.528	15.572	1.00	0.00	A	N
ATOM	749	NH2	ARG A 124	11.966	4.834	15.062	1.00	0.00	A	N
ATOM	750	C	ARG A 124	18.107	2.087	14.710	1.00	0.00	A	C
ATOM	751	O	ARG A 124	17.724	2.325	13.562	1.00	0.00	A	O
ATOM	752	N	ARG A 125	19.136	2.743	15.297	1.00	0.00	A	N
ATOM	753	CA	ARG A 125	19.807	3.860	14.684	1.00	0.00	A	C
ATOM	754	CB	ARG A 125	20.856	4.532	15.582	1.00	0.00	A	C
ATOM	755	CG	ARG A 125	21.613	5.657	14.875	1.00	0.00	A	C
ATOM	756	CD	ARG A 125	22.648	6.334	15.766	1.00	0.00	A	C
ATOM	757	NE	ARG A 125	23.441	5.260	16.420	1.00	0.00	A	N
ATOM	758	CZ	ARG A 125	24.627	5.570	17.014	1.00	0.00	A	C
ATOM	759	NH1	ARG A 125	25.117	6.842	16.947	1.00	0.00	A	N
ATOM	760	NH2	ARG A 125	25.327	4.605	17.674	1.00	0.00	A	N
ATOM	761	C	ARG A 125	20.538	3.463	13.442	1.00	0.00	A	C
ATOM	762	O	ARG A 125	20.481	4.190	12.451	1.00	0.00	A	O
ATOM	763	N	PHE A 126	21.248	2.314	13.477	1.00	0.00	A	N
ATOM	764	CA	PHE A 126	22.009	1.839	12.352	1.00	0.00	A	C
ATOM	765	CB	PHE A 126	22.905	0.612	12.671	1.00	0.00	A	C
ATOM	766	CG	PHE A 126	23.652	0.200	11.435	1.00	0.00	A	C
ATOM	767	CD1	PHE A 126	24.756	0.915	11.009	1.00	0.00	A	C
ATOM	768	CD2	PHE A 126	23.244	-0.899	10.705	1.00	0.00	A	C
ATOM	769	CE1	PHE A 126	25.439	0.535	9.878	1.00	0.00	A	C
ATOM	770	CE2	PHE A 126	23.927	-1.276	9.579	1.00	0.00	A	C
ATOM	771	CZ	PHE A 126	25.018	-0.558	9.163	1.00	0.00	A	C
ATOM	772	C	PHE A 126	21.070	1.473	11.250	1.00	0.00	A	C
ATOM	773	O	PHE A 126	21.363	1.712	10.080	1.00	0.00	A	O
ATOM	774	N	SER A 127	19.924	0.879	11.625	1.00	0.00	A	N
ATOM	775	CA	SER A 127	18.944	0.387	10.707	1.00	0.00	A	C
ATOM	776	CB	SER A 127	17.813	-0.344	11.444	1.00	0.00	A	C
ATOM	777	OG	SER A 127	16.879	-0.866	10.516	1.00	0.00	A	O
ATOM	778	C	SER A 127	18.352	1.495	9.899	1.00	0.00	A	C
ATOM	779	O	SER A 127	18.224	1.345	8.686	1.00	0.00	A	O
ATOM	780	N	LEU A 128	18.005	2.628	10.546	1.00	0.00	A	N
ATOM	781	CA	LEU A 128	17.405	3.747	9.863	1.00	0.00	A	C
ATOM	782	CB	LEU A 128	16.937	4.888	10.788	1.00	0.00	A	C
ATOM	783	CG	LEU A 128	15.513	4.717	11.352	1.00	0.00	A	C
ATOM	784	CD2	LEU A 128	15.303	3.333	11.958	1.00	0.00	A	C
ATOM	785	CD1	LEU A 128	14.447	4.996	10.284	1.00	0.00	A	C
ATOM	786	C	LEU A 128	18.367	4.350	8.890	1.00	0.00	A	C
ATOM	787	O	LEU A 128	17.974	4.769	7.800	1.00	0.00	A	O
ATOM	788	N	MET A 129	19.650	4.404	9.284	1.00	0.00	A	N
ATOM	789	CA	MET A 129	20.674	5.006	8.485	1.00	0.00	A	C
ATOM	790	CB	MET A 129	21.954	5.221	9.320	1.00	0.00	A	C
ATOM	791	CG	MET A 129	22.825	6.391	8.864	1.00	0.00	A	C
ATOM	792	SD	MET A 129	24.231	5.916	7.839	1.00	0.00	A	S
ATOM	793	CE	MET A 129	25.211	5.549	9.330	1.00	0.00	A	C
ATOM	794	C	MET A 129	20.897	4.216	7.222	1.00	0.00	A	C
ATOM	795	O	MET A 129	21.031	4.786	6.141	1.00	0.00	A	O
ATOM	796	N	THR A 130	20.901	2.876	7.317	1.00	0.00	A	N
ATOM	797	CA	THR A 130	21.084	2.014	6.181	1.00	0.00	A	C
ATOM	798	CB	THR A 130	21.350	0.598	6.609	1.00	0.00	A	C
ATOM	799	OG1	THR A 130	22.404	0.572	7.556	1.00	0.00	A	O
ATOM	800	CG2	THR A 130	21.807	-0.214	5.391	1.00	0.00	A	C
ATOM	801	C	THR A 130	19.839	2.040	5.318	1.00	0.00	A	C
ATOM	802	O	THR A 130	19.904	1.847	4.104	1.00	0.00	A	O
ATOM	803	N	LEU A 131	18.661	2.236	5.946	1.00	0.00	A	N
ATOM	804	CA	LEU A 131	17.362	2.228	5.322	1.00	0.00	A	C
ATOM	805	CB	LEU A 131	16.175	2.012	6.278	1.00	0.00	A	C
ATOM	806	CG	LEU A 131	16.057	0.538	6.721	1.00	0.00	A	C
ATOM	807	CD2	LEU A 131	16.259	-0.422	5.537	1.00	0.00	A	C
ATOM	808	CD1	LEU A 131	14.765	0.272	7.510	1.00	0.00	A	C
ATOM	809	C	LEU A 131	17.095	3.416	4.468	1.00	0.00	A	C
ATOM	810	O	LEU A 131	16.110	3.418	3.729	1.00	0.00	A	O
ATOM	811	N	ARG A 132	17.916	4.485	4.600	1.00	0.00	A	N
ATOM	812	CA	ARG A 132	17.781	5.704	3.838	1.00	0.00	A	C
ATOM	813	CB	ARG A 132	18.812	6.754	4.274	1.00	0.00	A	C
ATOM	814	CG	ARG A 132	18.606	7.177	5.729	1.00	0.00	A	C
ATOM	815	CD	ARG A 132	19.895	7.605	6.421	1.00	0.00	A	C
ATOM	816	NE	ARG A 132	20.288	8.932	5.884	1.00	0.00	A	N
ATOM	817	CZ	ARG A 132	21.574	9.152	5.487	1.00	0.00	A	C
ATOM	818	NH1	ARG A 132	22.491	8.140	5.549	1.00	0.00	A	N
ATOM	819	NH2	ARG A 132	21.944	10.375	5.025	1.00	0.00	A	N
ATOM	820	C	ARG A 132	17.973	5.375	2.381	1.00	0.00	A	C
ATOM	821	O	ARG A 132	18.618	4.378	2.053	1.00	0.00	A	O

451/514

Figure 7

ATOM	822	N	ASN A 133	17.369	6.209	1.495	1.00	0.00	A	N
ATOM	823	CA	ASN A 133	17.276	6.024	0.064	1.00	0.00	A	C
ATOM	824	CB	ASN A 133	16.641	7.248	-0.619	1.00	0.00	A	C
ATOM	825	CG	ASN A 133	16.301	6.871	-2.049	1.00	0.00	A	C
ATOM	826	OD1	ASN A 133	16.844	7.400	-3.017	1.00	0.00	A	O
ATOM	827	ND2	ASN A 133	15.358	5.903	-2.176	1.00	0.00	A	N
ATOM	828	C	ASN A 133	18.646	5.851	-0.531	1.00	0.00	A	C
ATOM	829	O	ASN A 133	18.865	4.997	-1.390	1.00	0.00	A	O
ATOM	830	N	PHE A 134	19.577	6.696	-0.067	1.00	0.00	A	N
ATOM	831	CA	PHE A 134	20.984	6.747	-0.357	1.00	0.00	A	C
ATOM	832	CB	PHE A 134	21.514	8.183	-0.448	1.00	0.00	A	C
ATOM	833	CG	PHE A 134	20.917	8.667	-1.724	1.00	0.00	A	C
ATOM	834	CD1	PHE A 134	21.498	8.326	-2.924	1.00	0.00	A	C
ATOM	835	CD2	PHE A 134	19.777	9.436	-1.726	1.00	0.00	A	C
ATOM	836	CE1	PHE A 134	20.956	8.755	-4.112	1.00	0.00	A	C
ATOM	837	CE2	PHE A 134	19.231	9.869	-2.911	1.00	0.00	A	C
ATOM	838	CZ	PHE A 134	19.821	9.527	-4.106	1.00	0.00	A	C
ATOM	839	C	PHE A 134	21.870	5.932	0.554	1.00	0.00	A	C
ATOM	840	O	PHE A 134	23.073	5.864	0.318	1.00	0.00	A	O
ATOM	841	N	GLY A 135	21.328	5.359	1.642	1.00	0.00	A	N
ATOM	842	CA	GLY A 135	22.015	4.760	2.766	1.00	0.00	A	C
ATOM	843	C	GLY A 135	23.062	3.711	2.468	1.00	0.00	A	C
ATOM	844	O	GLY A 135	23.867	3.432	3.359	1.00	0.00	A	O
ATOM	845	N	MET A 136	23.053	3.008	1.310	1.00	0.00	A	N
ATOM	846	CA	MET A 136	24.085	2.001	1.179	1.00	0.00	A	C
ATOM	847	CB	MET A 136	23.652	0.704	1.879	1.00	0.00	A	C
ATOM	848	CG	MET A 136	22.155	0.432	1.689	1.00	0.00	A	C
ATOM	849	SD	MET A 136	21.590	-1.229	2.139	1.00	0.00	A	S
ATOM	850	CE	MET A 136	19.829	-0.878	1.872	1.00	0.00	A	C
ATOM	851	C	MET A 136	24.399	1.639	-0.255	1.00	0.00	A	C
ATOM	852	O	MET A 136	23.636	0.935	-0.918	1.00	0.00	A	O
ATOM	853	N	GLY A 137	25.585	2.040	-0.762	1.00	0.00	A	N
ATOM	854	CA	GLY A 137	25.948	1.626	-2.088	1.00	0.00	A	C
ATOM	855	C	GLY A 137	25.373	2.573	-3.093	1.00	0.00	A	C
ATOM	856	O	GLY A 137	24.652	3.510	-2.756	1.00	0.00	A	O
ATOM	857	N	LYS A 138	25.715	2.328	-4.373	1.00	0.00	A	N
ATOM	858	CA	LYS A 138	25.316	3.105	-5.514	1.00	0.00	A	C
ATOM	859	CB	LYS A 138	26.085	2.715	-6.788	1.00	0.00	A	C
ATOM	860	CG	LYS A 138	27.569	3.083	-6.717	1.00	0.00	A	C
ATOM	861	CD	LYS A 138	28.430	2.425	-7.796	1.00	0.00	A	C
ATOM	862	CE	LYS A 138	29.913	2.790	-7.684	1.00	0.00	A	C
ATOM	863	NZ	LYS A 138	30.715	1.967	-8.615	1.00	0.00	A	N
ATOM	864	C	LYS A 138	23.849	2.968	-5.803	1.00	0.00	A	C
ATOM	865	O	LYS A 138	23.247	3.896	-6.340	1.00	0.00	A	O
ATOM	866	N	ARG A 139	23.250	1.794	-5.505	1.00	0.00	A	N
ATOM	867	CA	ARG A 139	21.866	1.534	-5.821	1.00	0.00	A	C
ATOM	868	CB	ARG A 139	21.582	0.033	-5.984	1.00	0.00	A	C
ATOM	869	CG	ARG A 139	20.131	-0.296	-6.317	1.00	0.00	A	C
ATOM	870	CD	ARG A 139	19.896	-1.783	-6.575	1.00	0.00	A	C
ATOM	871	NE	ARG A 139	18.438	-1.952	-6.816	1.00	0.00	A	N
ATOM	872	CZ	ARG A 139	18.005	-2.627	-7.916	1.00	0.00	A	C
ATOM	873	NH1	ARG A 139	18.910	-3.143	-8.797	1.00	0.00	A	N
ATOM	874	NH2	ARG A 139	16.667	-2.777	-8.135	1.00	0.00	A	N
ATOM	875	C	ARG A 139	20.972	2.062	-4.738	1.00	0.00	A	C
ATOM	876	O	ARG A 139	21.174	1.791	-3.557	1.00	0.00	A	O
ATOM	877	N	SER A 140	19.934	2.834	-5.130	1.00	0.00	A	N
ATOM	878	CA	SER A 140	19.052	3.429	-4.165	1.00	0.00	A	C
ATOM	879	CB	SER A 140	18.388	4.721	-4.675	1.00	0.00	A	C
ATOM	880	OG	SER A 140	17.589	4.438	-5.813	1.00	0.00	A	O
ATOM	881	C	SER A 140	17.970	2.472	-3.788	1.00	0.00	A	C
ATOM	882	O	SER A 140	17.739	1.470	-4.467	1.00	0.00	A	O
ATOM	883	N	ILE A 141	17.289	2.785	-2.660	1.00	0.00	A	N
ATOM	884	CA	ILE A 141	16.183	2.031	-2.146	1.00	0.00	A	C
ATOM	885	CB	ILE A 141	15.665	2.578	-0.844	1.00	0.00	A	C
ATOM	886	CG2	ILE A 141	14.337	1.878	-0.516	1.00	0.00	A	C
ATOM	887	CG1	ILE A 141	16.722	2.416	0.262	1.00	0.00	A	C
ATOM	888	CD1	ILE A 141	17.066	0.957	0.567	1.00	0.00	A	C
ATOM	889	C	ILE A 141	15.085	2.121	-3.162	1.00	0.00	A	C
ATOM	890	O	ILE A 141	14.426	1.129	-3.469	1.00	0.00	A	O
ATOM	891	N	GLU A 142	14.915	3.327	-3.739	1.00	0.00	A	N
ATOM	892	CA	GLU A 142	13.892	3.635	-4.697	1.00	0.00	A	C
ATOM	893	CB	GLU A 142	13.860	5.115	-5.117	1.00	0.00	A	C
ATOM	894	CG	GLU A 142	12.664	5.437	-6.019	1.00	0.00	A	C
ATOM	895	CD	GLU A 142	12.693	6.911	-6.393	1.00	0.00	A	C
ATOM	896	OE1	GLU A 142	13.427	7.688	-5.725	1.00	0.00	A	O

452/514

Figure 7

ATOM	897	OE2	GLU	A	142	11.967	7.278	-7.356	1.00	0.00	A	O
ATOM	898	C	GLU	A	142	14.066	2.827	-5.944	1.00	0.00	A	C
ATOM	899	O	GLU	A	142	13.076	2.465	-6.577	1.00	0.00	A	O
ATOM	900	N	ASP	A	143	15.330	2.549	-6.317	1.00	0.00	A	N
ATOM	901	CA	ASP	A	143	15.652	1.796	-7.496	1.00	0.00	A	C
ATOM	902	CB	ASP	A	143	17.173	1.730	-7.710	1.00	0.00	A	C
ATOM	903	CG	ASP	A	143	17.481	1.432	-9.168	1.00	0.00	A	C
ATOM	904	OD1	ASP	A	143	16.534	1.138	-9.946	1.00	0.00	A	O
ATOM	905	OD2	ASP	A	143	18.687	1.507	-9.525	1.00	0.00	A	O
ATOM	906	C	ASP	A	143	15.142	0.395	-7.336	1.00	0.00	A	C
ATOM	907	O	ASP	A	143	14.560	-0.162	-8.268	1.00	0.00	A	O
ATOM	908	N	ARG	A	144	15.329	-0.170	-6.120	1.00	0.00	A	N
ATOM	909	CA	ARG	A	144	14.913	-1.504	-5.782	1.00	0.00	A	C
ATOM	910	CB	ARG	A	144	15.258	-1.913	-4.344	1.00	0.00	A	C
ATOM	911	CG	ARG	A	144	16.740	-2.172	-4.107	1.00	0.00	A	C
ATOM	912	CD	ARG	A	144	17.032	-2.663	-2.691	1.00	0.00	A	C
ATOM	913	NE	ARG	A	144	18.500	-2.886	-2.613	1.00	0.00	A	N
ATOM	914	CZ	ARG	A	144	19.325	-1.832	-2.365	1.00	0.00	A	C
ATOM	915	NH1	ARG	A	144	18.802	-0.587	-2.168	1.00	0.00	A	N
ATOM	916	NH2	ARG	A	144	20.674	-2.026	-2.323	1.00	0.00	A	N
ATOM	917	C	ARG	A	144	13.426	-1.607	-5.866	1.00	0.00	A	C
ATOM	918	O	ARG	A	144	12.913	-2.580	-6.421	1.00	0.00	A	O
ATOM	919	N	VAL	A	145	12.712	-0.598	-5.323	1.00	0.00	A	N
ATOM	920	CA	VAL	A	145	11.275	-0.608	-5.298	1.00	0.00	A	C
ATOM	921	CB	VAL	A	145	10.696	0.522	-4.492	1.00	0.00	A	C
ATOM	922	CG1	VAL	A	145	9.160	0.471	-4.584	1.00	0.00	A	C
ATOM	923	CG2	VAL	A	145	11.229	0.397	-3.054	1.00	0.00	A	C
ATOM	924	C	VAL	A	145	10.733	-0.519	-6.696	1.00	0.00	A	C
ATOM	925	O	VAL	A	145	9.786	-1.224	-7.040	1.00	0.00	A	O
ATOM	926	N	GLN	A	146	11.350	0.330	-7.541	1.00	0.00	A	N
ATOM	927	CA	GLN	A	146	10.887	0.500	-8.888	1.00	0.00	A	C
ATOM	928	CB	GLN	A	146	11.388	1.796	-9.561	1.00	0.00	A	C
ATOM	929	CG	GLN	A	146	12.898	1.990	-9.648	1.00	0.00	A	C
ATOM	930	CD	GLN	A	146	13.131	3.437	-10.069	1.00	0.00	A	C
ATOM	931	OE1	GLN	A	146	12.193	4.158	-10.408	1.00	0.00	A	O
ATOM	932	NE2	GLN	A	146	14.417	3.881	-10.037	1.00	0.00	A	N
ATOM	933	C	GLN	A	146	11.103	-0.729	-9.724	1.00	0.00	A	C
ATOM	934	O	GLN	A	146	10.273	-1.022	-10.587	1.00	0.00	A	O
ATOM	935	N	GLU	A	147	12.204	-1.480	-9.484	1.00	0.00	A	N
ATOM	936	CA	GLU	A	147	12.455	-2.695	-10.220	1.00	0.00	A	C
ATOM	937	CB	GLU	A	147	13.813	-3.353	-9.936	1.00	0.00	A	C
ATOM	938	CG	GLU	A	147	13.996	-4.632	-10.758	1.00	0.00	A	C
ATOM	939	CD	GLU	A	147	15.350	-5.243	-10.440	1.00	0.00	A	C
ATOM	940	OE1	GLU	A	147	16.370	-4.507	-10.517	1.00	0.00	A	O
ATOM	941	OE2	GLU	A	147	15.384	-6.458	-10.115	1.00	0.00	A	O
ATOM	942	C	GLU	A	147	11.421	-3.728	-9.883	1.00	0.00	A	C
ATOM	943	O	GLU	A	147	10.928	-4.430	-10.765	1.00	0.00	A	O
ATOM	944	N	GLU	A	148	11.063	-3.811	-8.588	1.00	0.00	A	N
ATOM	945	CA	GLU	A	148	10.117	-4.770	-8.098	1.00	0.00	A	C
ATOM	946	CB	GLU	A	148	10.037	-4.813	-6.569	1.00	0.00	A	C
ATOM	947	CG	GLU	A	148	9.539	-6.172	-6.093	1.00	0.00	A	C
ATOM	948	CD	GLU	A	148	10.544	-7.179	-6.639	1.00	0.00	A	C
ATOM	949	OE1	GLU	A	148	11.621	-7.342	-6.013	1.00	0.00	A	O
ATOM	950	OE2	GLU	A	148	10.264	-7.789	-7.703	1.00	0.00	A	O
ATOM	951	C	GLU	A	148	8.756	-4.467	-8.643	1.00	0.00	A	C
ATOM	952	O	GLU	A	148	7.954	-5.380	-8.829	1.00	0.00	A	O
ATOM	953	N	ALA	A	149	8.463	-3.171	-8.878	1.00	0.00	A	N
ATOM	954	CA	ALA	A	149	7.183	-2.744	-9.375	1.00	0.00	A	C
ATOM	955	CB	ALA	A	149	7.068	-1.215	-9.443	1.00	0.00	A	C
ATOM	956	C	ALA	A	149	6.935	-3.289	-10.757	1.00	0.00	A	C
ATOM	957	O	ALA	A	149	5.844	-3.786	-11.030	1.00	0.00	A	O
ATOM	958	N	ARG	A	150	7.956	-3.233	-11.641	1.00	0.00	A	N
ATOM	959	CA	ARG	A	150	7.848	-3.721	-12.993	1.00	0.00	A	C
ATOM	960	CB	ARG	A	150	9.123	-3.484	-13.813	1.00	0.00	A	C
ATOM	961	CG	ARG	A	150	9.340	-2.043	-14.258	1.00	0.00	A	C
ATOM	962	CD	ARG	A	150	10.694	-1.809	-14.935	1.00	0.00	A	C
ATOM	963	NE	ARG	A	150	11.122	-3.080	-15.590	1.00	0.00	A	N
ATOM	964	CZ	ARG	A	150	12.136	-3.816	-15.046	1.00	0.00	A	C
ATOM	965	NH1	ARG	A	150	12.777	-3.368	-13.928	1.00	0.00	A	N
ATOM	966	NH2	ARG	A	150	12.502	-5.004	-15.610	1.00	0.00	A	N
ATOM	967	C	ARG	A	150	7.657	-5.208	-12.994	1.00	0.00	A	C
ATOM	968	O	ARG	A	150	6.876	-5.737	-13.785	1.00	0.00	A	O
ATOM	969	N	CYS	A	151	8.387	-5.905	-12.105	1.00	0.00	A	N
ATOM	970	CA	CYS	A	151	8.340	-7.339	-12.005	1.00	0.00	A	C
ATOM	971	CB	CYS	A	151	9.408	-7.879	-11.042	1.00	0.00	A	C

Figure 7

ATOM	972	SG	CYS	A	151	11.074	-7.492	-11.657	1.00	0.00	A	S
ATOM	973	C	CYS	A	151	6.980	-7.775	-11.542	1.00	0.00	A	C
ATOM	974	O	CYS	A	151	6.480	-8.820	-11.961	1.00	0.00	A	O
ATOM	975	N	LEU	A	152	6.359	-6.973	-10.657	1.00	0.00	A	N
ATOM	976	CA	LEU	A	152	5.057	-7.236	-10.109	1.00	0.00	A	C
ATOM	977	CB	LEU	A	152	4.715	-6.243	-8.965	1.00	0.00	A	C
ATOM	978	CG	LEU	A	152	3.527	-6.565	-8.012	1.00	0.00	A	C
ATOM	979	CD2	LEU	A	152	2.138	-6.596	-8.677	1.00	0.00	A	C
ATOM	980	CD1	LEU	A	152	3.522	-5.569	-6.841	1.00	0.00	A	C
ATOM	981	C	LEU	A	152	4.077	-7.098	-11.236	1.00	0.00	A	C
ATOM	982	O	LEU	A	152	3.099	-7.844	-11.306	1.00	0.00	A	O
ATOM	983	N	VAL	A	153	4.311	-6.112	-12.125	1.00	0.00	A	N
ATOM	984	CA	VAL	A	153	3.440	-5.864	-13.238	1.00	0.00	A	C
ATOM	985	CB	VAL	A	153	3.788	-4.599	-13.961	1.00	0.00	A	C
ATOM	986	CG1	VAL	A	153	2.965	-4.479	-15.257	1.00	0.00	A	C
ATOM	987	CG2	VAL	A	153	3.517	-3.459	-12.976	1.00	0.00	A	C
ATOM	988	C	VAL	A	153	3.484	-7.006	-14.205	1.00	0.00	A	C
ATOM	989	O	VAL	A	153	2.443	-7.421	-14.709	1.00	0.00	A	O
ATOM	990	N	GLU	A	154	4.690	-7.539	-14.479	1.00	0.00	A	N
ATOM	991	CA	GLU	A	154	4.875	-8.620	-15.411	1.00	0.00	A	C
ATOM	992	CB	GLU	A	154	6.367	-8.894	-15.670	1.00	0.00	A	C
ATOM	993	CG	GLU	A	154	7.056	-7.710	-16.358	1.00	0.00	A	C
ATOM	994	CD	GLU	A	154	8.552	-7.979	-16.443	1.00	0.00	A	C
ATOM	995	OE1	GLU	A	154	8.971	-9.121	-16.119	1.00	0.00	A	O
ATOM	996	OE2	GLU	A	154	9.296	-7.039	-16.830	1.00	0.00	A	O
ATOM	997	C	GLU	A	154	4.229	-9.867	-14.876	1.00	0.00	A	C
ATOM	998	O	GLU	A	154	3.644	-10.643	-15.629	1.00	0.00	A	O
ATOM	999	N	GLU	A	155	4.323	-10.089	-13.550	1.00	0.00	A	N
ATOM	1000	CA	GLU	A	155	3.711	-11.236	-12.938	1.00	0.00	A	C
ATOM	1001	CB	GLU	A	155	4.114	-11.451	-11.478	1.00	0.00	A	C
ATOM	1002	CG	GLU	A	155	5.461	-12.155	-11.376	1.00	0.00	A	C
ATOM	1003	CD	GLU	A	155	5.253	-13.592	-11.840	1.00	0.00	A	C
ATOM	1004	OE1	GLU	A	155	4.470	-14.315	-11.170	1.00	0.00	A	O
ATOM	1005	OE2	GLU	A	155	5.870	-13.986	-12.867	1.00	0.00	A	O
ATOM	1006	C	GLU	A	155	2.221	-11.116	-13.001	1.00	0.00	A	C
ATOM	1007	O	GLU	A	155	1.516	-12.117	-13.126	1.00	0.00	A	O
ATOM	1008	N	LEU	A	156	1.709	-9.876	-12.896	1.00	0.00	A	N
ATOM	1009	CA	LEU	A	156	0.301	-9.637	-12.983	1.00	0.00	A	C
ATOM	1010	CB	LEU	A	156	-0.111	-8.196	-12.639	1.00	0.00	A	C
ATOM	1011	CG	LEU	A	156	-0.057	-7.889	-11.136	1.00	0.00	A	C
ATOM	1012	CD2	LEU	A	156	-0.890	-8.911	-10.344	1.00	0.00	A	C
ATOM	1013	CD1	LEU	A	156	-0.475	-6.441	-10.846	1.00	0.00	A	C
ATOM	1014	C	LEU	A	156	-0.167	-9.905	-14.377	1.00	0.00	A	C
ATOM	1015	O	LEU	A	156	-1.278	-10.393	-14.559	1.00	0.00	A	O
ATOM	1016	N	ARG	A	157	0.650	-9.589	-15.404	1.00	0.00	A	N
ATOM	1017	CA	ARG	A	157	0.235	-9.773	-16.769	1.00	0.00	A	C
ATOM	1018	CB	ARG	A	157	0.994	-8.967	-17.858	1.00	0.00	A	C
ATOM	1019	CG	ARG	A	157	2.491	-9.204	-18.032	1.00	0.00	A	C
ATOM	1020	CD	ARG	A	157	3.132	-8.353	-19.133	1.00	0.00	A	C
ATOM	1021	NE	ARG	A	157	2.931	-6.917	-18.787	1.00	0.00	A	N
ATOM	1022	CZ	ARG	A	157	1.956	-6.189	-19.410	1.00	0.00	A	C
ATOM	1023	NH1	ARG	A	157	1.184	-6.767	-20.374	1.00	0.00	A	N
ATOM	1024	NH2	ARG	A	157	1.763	-4.881	-19.073	1.00	0.00	A	N
ATOM	1025	C	ARG	A	157	0.135	-11.233	-17.117	1.00	0.00	A	C
ATOM	1026	O	ARG	A	157	-0.597	-11.616	-18.027	1.00	0.00	A	O
ATOM	1027	N	LYS	A	158	0.867	-12.082	-16.373	1.00	0.00	A	N
ATOM	1028	CA	LYS	A	158	0.912	-13.510	-16.512	1.00	0.00	A	C
ATOM	1029	CB	LYS	A	158	1.903	-14.136	-15.519	1.00	0.00	A	C
ATOM	1030	CG	LYS	A	158	2.231	-15.599	-15.796	1.00	0.00	A	C
ATOM	1031	CD	LYS	A	158	3.463	-16.078	-15.026	1.00	0.00	A	C
ATOM	1032	CE	LYS	A	158	3.826	-17.541	-15.281	1.00	0.00	A	C
ATOM	1033	NZ	LYS	A	158	5.100	-17.866	-14.600	1.00	0.00	A	N
ATOM	1034	C	LYS	A	158	-0.445	-14.104	-16.252	1.00	0.00	A	C
ATOM	1035	O	LYS	A	158	-0.766	-15.159	-16.796	1.00	0.00	A	O
ATOM	1036	N	THR	A	159	-1.295	-13.436	-15.431	1.00	0.00	A	N
ATOM	1037	CA	THR	A	159	-2.617	-13.888	-15.064	1.00	0.00	A	C
ATOM	1038	CB	THR	A	159	-3.329	-13.043	-14.033	1.00	0.00	A	C
ATOM	1039	OG1	THR	A	159	-4.381	-13.808	-13.476	1.00	0.00	A	O
ATOM	1040	CG2	THR	A	159	-3.960	-11.793	-14.668	1.00	0.00	A	C
ATOM	1041	C	THR	A	159	-3.513	-13.979	-16.275	1.00	0.00	A	C
ATOM	1042	O	THR	A	159	-4.506	-14.704	-16.236	1.00	0.00	A	O
ATOM	1043	N	LYS	A	160	-3.203	-13.216	-17.351	1.00	0.00	A	N
ATOM	1044	CA	LYS	A	160	-3.895	-13.205	-18.608	1.00	0.00	A	C
ATOM	1045	CB	LYS	A	160	-3.826	-14.526	-19.391	1.00	0.00	A	C
ATOM	1046	CG	LYS	A	160	-2.511	-14.671	-20.161	1.00	0.00	A	C

454/514

Figure 7

ATOM	1047	CD	LYS	A	160	-2.275	-13.513	-21.138	1.00	0.00	A	C
ATOM	1048	CE	LYS	A	160	-1.016	-13.650	-21.999	1.00	0.00	A	C
ATOM	1049	NZ	LYS	A	160	-1.365	-14.242	-23.308	1.00	0.00	A	N
ATOM	1050	C	LYS	A	160	-5.314	-12.787	-18.444	1.00	0.00	A	C
ATOM	1051	O	LYS	A	160	-6.193	-13.248	-19.171	1.00	0.00	A	O
ATOM	1052	N	ALA	A	161	-5.534	-11.855	-17.497	1.00	0.00	A	N
ATOM	1053	CA	ALA	A	161	-6.809	-11.242	-17.258	1.00	0.00	A	C
ATOM	1054	CB	ALA	A	161	-7.333	-10.466	-18.479	1.00	0.00	A	C
ATOM	1055	C	ALA	A	161	-7.872	-12.219	-16.858	1.00	0.00	A	C
ATOM	1056	O	ALA	A	161	-9.031	-12.046	-17.225	1.00	0.00	A	O
ATOM	1057	N	SER	A	162	-7.514	-13.260	-16.086	1.00	0.00	A	N
ATOM	1058	CA	SER	A	162	-8.499	-14.191	-15.618	1.00	0.00	A	C
ATOM	1059	CB	SER	A	162	-8.083	-15.658	-15.811	1.00	0.00	A	C
ATOM	1060	OG	SER	A	162	-6.911	-15.922	-15.055	1.00	0.00	A	O
ATOM	1061	C	SER	A	162	-8.588	-13.929	-14.153	1.00	0.00	A	C
ATOM	1062	O	SER	A	162	-7.718	-13.239	-13.626	1.00	0.00	A	O
ATOM	1063	N	PRO	A	163	-9.615	-14.433	-13.500	1.00	0.00	A	N
ATOM	1064	CA	PRO	A	163	-9.812	-14.210	-12.090	1.00	0.00	A	C
ATOM	1065	CD	PRO	A	163	-10.876	-14.668	-14.173	1.00	0.00	A	C
ATOM	1066	CB	PRO	A	163	-11.236	-14.682	-11.774	1.00	0.00	A	C
ATOM	1067	CG	PRO	A	163	-11.739	-15.322	-13.083	1.00	0.00	A	C
ATOM	1068	C	PRO	A	163	-8.731	-14.814	-11.262	1.00	0.00	A	C
ATOM	1069	O	PRO	A	163	-8.220	-15.876	-11.613	1.00	0.00	A	O
ATOM	1070	N	CYS	A	164	-8.324	-14.104	-10.196	1.00	0.00	A	N
ATOM	1071	CA	CYS	A	164	-7.265	-14.612	-9.392	1.00	0.00	A	C
ATOM	1072	CB	CYS	A	164	-5.859	-14.352	-9.967	1.00	0.00	A	C
ATOM	1073	SG	CYS	A	164	-5.386	-12.599	-9.860	1.00	0.00	A	S
ATOM	1074	C	CYS	A	164	-7.311	-13.959	-8.054	1.00	0.00	A	C
ATOM	1075	O	CYS	A	164	-7.865	-12.876	-7.863	1.00	0.00	A	O
ATOM	1076	N	ASP	A	165	-6.699	-14.661	-7.094	1.00	0.00	A	N
ATOM	1077	CA	ASP	A	165	-6.540	-14.290	-5.725	1.00	0.00	A	C
ATOM	1078	CB	ASP	A	165	-6.659	-15.601	-4.901	1.00	0.00	A	C
ATOM	1079	CG	ASP	A	165	-5.849	-15.666	-3.608	1.00	0.00	A	C
ATOM	1080	OD1	ASP	A	165	-5.753	-14.672	-2.840	1.00	0.00	A	O
ATOM	1081	OD2	ASP	A	165	-5.303	-16.781	-3.391	1.00	0.00	A	O
ATOM	1082	C	ASP	A	165	-5.183	-13.635	-5.648	1.00	0.00	A	C
ATOM	1083	O	ASP	A	165	-4.138	-14.279	-5.704	1.00	0.00	A	O
ATOM	1084	N	PRO	A	166	-5.210	-12.332	-5.531	1.00	0.00	A	N
ATOM	1085	CA	PRO	A	166	-4.054	-11.465	-5.541	1.00	0.00	A	C
ATOM	1086	CD	PRO	A	166	-6.430	-11.616	-5.186	1.00	0.00	A	C
ATOM	1087	CB	PRO	A	166	-4.624	-10.047	-5.544	1.00	0.00	A	C
ATOM	1088	CG	PRO	A	166	-5.968	-10.198	-4.810	1.00	0.00	A	C
ATOM	1089	C	PRO	A	166	-3.116	-11.628	-4.383	1.00	0.00	A	C
ATOM	1090	O	PRO	A	166	-2.032	-11.056	-4.464	1.00	0.00	A	O
ATOM	1091	N	THR	A	167	-3.509	-12.365	-3.321	1.00	0.00	A	N
ATOM	1092	CA	THR	A	167	-2.793	-12.452	-2.073	1.00	0.00	A	C
ATOM	1093	CB	THR	A	167	-3.507	-13.315	-1.069	1.00	0.00	A	C
ATOM	1094	OG1	THR	A	167	-4.818	-12.808	-0.870	1.00	0.00	A	O
ATOM	1095	CG2	THR	A	167	-2.735	-13.310	0.267	1.00	0.00	A	C
ATOM	1096	C	THR	A	167	-1.379	-12.954	-2.220	1.00	0.00	A	C
ATOM	1097	O	THR	A	167	-0.479	-12.414	-1.579	1.00	0.00	A	O
ATOM	1098	N	PHE	A	168	-1.138	-13.987	-3.050	1.00	0.00	A	N
ATOM	1099	CA	PHE	A	168	0.194	-14.526	-3.186	1.00	0.00	A	C
ATOM	1100	CB	PHE	A	168	0.197	-15.875	-3.940	1.00	0.00	A	C
ATOM	1101	CG	PHE	A	168	1.573	-16.458	-3.937	1.00	0.00	A	C
ATOM	1102	CD1	PHE	A	168	2.058	-17.078	-2.808	1.00	0.00	A	C
ATOM	1103	CD2	PHE	A	168	2.383	-16.376	-5.050	1.00	0.00	A	C
ATOM	1104	CE1	PHE	A	168	3.324	-17.614	-2.793	1.00	0.00	A	C
ATOM	1105	CE2	PHE	A	168	3.649	-16.910	-5.041	1.00	0.00	A	C
ATOM	1106	CZ	PHE	A	168	4.120	-17.531	-3.910	1.00	0.00	A	C
ATOM	1107	C	PHE	A	168	1.142	-13.585	-3.880	1.00	0.00	A	C
ATOM	1108	O	PHE	A	168	2.244	-13.359	-3.378	1.00	0.00	A	O
ATOM	1109	N	ILE	A	169	0.738	-13.028	-5.047	1.00	0.00	A	N
ATOM	1110	CA	ILE	A	169	1.569	-12.173	-5.864	1.00	0.00	A	C
ATOM	1111	CB	ILE	A	169	0.904	-11.775	-7.151	1.00	0.00	A	C
ATOM	1112	CG2	ILE	A	169	1.782	-10.712	-7.828	1.00	0.00	A	C
ATOM	1113	CG1	ILE	A	169	0.640	-13.010	-8.029	1.00	0.00	A	C
ATOM	1114	CD1	ILE	A	169	-0.257	-12.719	-9.232	1.00	0.00	A	C
ATOM	1115	C	ILE	A	169	1.886	-10.912	-5.124	1.00	0.00	A	C
ATOM	1116	O	ILE	A	169	3.042	-10.494	-5.055	1.00	0.00	A	O
ATOM	1117	N	LEU	A	170	0.851	-10.318	-4.499	1.00	0.00	A	N
ATOM	1118	CA	LEU	A	170	0.944	-9.112	-3.726	1.00	0.00	A	C
ATOM	1119	CB	LEU	A	170	-0.423	-8.589	-3.238	1.00	0.00	A	C
ATOM	1120	CG	LEU	A	170	-1.179	-7.701	-4.252	1.00	0.00	A	C
ATOM	1121	CD2	LEU	A	170	-2.559	-7.312	-3.695	1.00	0.00	A	C

Figure 7

ATOM	1122	CD1	LEU	A	170	-1.295	-8.337	-5.645	1.00	0.00	A	C
ATOM	1123	C	LEU	A	170	1.808	-9.346	-2.530	1.00	0.00	A	C
ATOM	1124	O	LEU	A	170	2.398	-8.411	-2.006	1.00	0.00	A	O
ATOM	1125	N	GLY	A	171	1.843	-10.583	-2.013	1.00	0.00	A	N
ATOM	1126	CA	GLY	A	171	2.709	-10.893	-0.914	1.00	0.00	A	C
ATOM	1127	C	GLY	A	171	4.144	-10.900	-1.353	1.00	0.00	A	C
ATOM	1128	O	GLY	A	171	5.045	-10.588	-0.574	1.00	0.00	A	O
ATOM	1129	N	CYS	A	172	4.390	-11.331	-2.606	1.00	0.00	A	N
ATOM	1130	CA	CYS	A	172	5.722	-11.534	-3.110	1.00	0.00	A	C
ATOM	1131	CB	CYS	A	172	5.729	-12.175	-4.506	1.00	0.00	A	C
ATOM	1132	SG	CYS	A	172	5.179	-13.908	-4.496	1.00	0.00	A	S
ATOM	1133	C	CYS	A	172	6.533	-10.281	-3.192	1.00	0.00	A	C
ATOM	1134	O	CYS	A	172	7.683	-10.296	-2.754	1.00	0.00	A	O
ATOM	1135	N	ALA	A	173	5.957	-9.183	-3.729	1.00	0.00	A	N
ATOM	1136	CA	ALA	A	173	6.690	-7.966	-3.976	1.00	0.00	A	C
ATOM	1137	CB	ALA	A	173	5.935	-6.950	-4.863	1.00	0.00	A	C
ATOM	1138	C	ALA	A	173	7.227	-7.307	-2.728	1.00	0.00	A	C
ATOM	1139	O	ALA	A	173	8.389	-6.907	-2.789	1.00	0.00	A	O
ATOM	1140	N	PRO	A	174	6.517	-7.161	-1.615	1.00	0.00	A	N
ATOM	1141	CA	PRO	A	174	7.124	-6.580	-0.445	1.00	0.00	A	C
ATOM	1142	CD	PRO	A	174	5.090	-6.886	-1.632	1.00	0.00	A	C
ATOM	1143	CB	PRO	A	174	5.989	-6.272	0.528	1.00	0.00	A	C
ATOM	1144	CG	PRO	A	174	4.791	-6.026	-0.397	1.00	0.00	A	C
ATOM	1145	C	PRO	A	174	8.192	-7.446	0.154	1.00	0.00	A	C
ATOM	1146	O	PRO	A	174	9.152	-6.904	0.700	1.00	0.00	A	O
ATOM	1147	N	CYS	A	175	8.040	-8.779	0.027	1.00	0.00	A	N
ATOM	1148	CA	CYS	A	175	9.014	-9.693	0.549	1.00	0.00	A	C
ATOM	1149	CB	CYS	A	175	8.572	-11.164	0.454	1.00	0.00	A	C
ATOM	1150	SG	CYS	A	175	9.824	-12.300	1.121	1.00	0.00	A	S
ATOM	1151	C	CYS	A	175	10.296	-9.558	-0.215	1.00	0.00	A	C
ATOM	1152	O	CYS	A	175	11.383	-9.519	0.364	1.00	0.00	A	O
ATOM	1153	N	ASN	A	176	10.205	-9.472	-1.556	1.00	0.00	A	N
ATOM	1154	CA	ASN	A	176	11.426	-9.382	-2.301	1.00	0.00	A	C
ATOM	1155	CB	ASN	A	176	11.526	-10.099	-3.673	1.00	0.00	A	C
ATOM	1156	CG	ASN	A	176	10.420	-9.774	-4.634	1.00	0.00	A	C
ATOM	1157	OD1	ASN	A	176	9.568	-8.943	-4.351	1.00	0.00	A	O
ATOM	1158	ND2	ASN	A	176	10.423	-10.456	-5.809	1.00	0.00	A	N
ATOM	1159	C	ASN	A	176	12.085	-8.042	-2.220	1.00	0.00	A	C
ATOM	1160	O	ASN	A	176	13.270	-7.949	-2.537	1.00	0.00	A	O
ATOM	1161	N	VAL	A	177	11.345	-6.973	-1.839	1.00	0.00	A	N
ATOM	1162	CA	VAL	A	177	11.945	-5.675	-1.638	1.00	0.00	A	C
ATOM	1163	CB	VAL	A	177	10.938	-4.592	-1.339	1.00	0.00	A	C
ATOM	1164	CG1	VAL	A	177	11.677	-3.311	-0.914	1.00	0.00	A	C
ATOM	1165	CG2	VAL	A	177	10.076	-4.376	-2.595	1.00	0.00	A	C
ATOM	1166	C	VAL	A	177	12.893	-5.778	-0.476	1.00	0.00	A	C
ATOM	1167	O	VAL	A	177	14.000	-5.242	-0.518	1.00	0.00	A	O
ATOM	1168	N	ILE	A	178	12.470	-6.506	0.579	1.00	0.00	A	N
ATOM	1169	CA	ILE	A	178	13.266	-6.717	1.754	1.00	0.00	A	C
ATOM	1170	CB	ILE	A	178	12.492	-7.363	2.859	1.00	0.00	A	C
ATOM	1171	CG2	ILE	A	178	13.440	-7.579	4.051	1.00	0.00	A	C
ATOM	1172	CG1	ILE	A	178	11.298	-6.455	3.208	1.00	0.00	A	C
ATOM	1173	CD1	ILE	A	178	10.223	-7.126	4.054	1.00	0.00	A	C
ATOM	1174	C	ILE	A	178	14.455	-7.552	1.401	1.00	0.00	A	C
ATOM	1175	O	ILE	A	178	15.552	-7.267	1.876	1.00	0.00	A	O
ATOM	1176	N	CYS	A	179	14.256	-8.578	0.541	1.00	0.00	A	N
ATOM	1177	CA	CYS	A	179	15.292	-9.481	0.092	1.00	0.00	A	C
ATOM	1178	CB	CYS	A	179	14.774	-10.542	-0.894	1.00	0.00	A	C
ATOM	1179	SG	CYS	A	179	13.627	-11.727	-0.133	1.00	0.00	A	S
ATOM	1180	C	CYS	A	179	16.348	-8.700	-0.645	1.00	0.00	A	C
ATOM	1181	O	CYS	A	179	17.532	-8.982	-0.507	1.00	0.00	A	O
ATOM	1182	N	SER	A	180	15.948	-7.689	-1.437	1.00	0.00	A	N
ATOM	1183	CA	SER	A	180	16.881	-6.871	-2.165	1.00	0.00	A	C
ATOM	1184	CB	SER	A	180	16.220	-5.865	-3.121	1.00	0.00	A	C
ATOM	1185	OG	SER	A	180	15.690	-6.519	-4.260	1.00	0.00	A	O
ATOM	1186	C	SER	A	180	17.665	-6.020	-1.226	1.00	0.00	A	C
ATOM	1187	O	SER	A	180	18.848	-5.785	-1.452	1.00	0.00	A	O
ATOM	1188	N	ILE	A	181	17.011	-5.491	-0.176	1.00	0.00	A	N
ATOM	1189	CA	ILE	A	181	17.677	-4.623	0.756	1.00	0.00	A	C
ATOM	1190	CB	ILE	A	181	16.722	-4.003	1.742	1.00	0.00	A	C
ATOM	1191	CG2	ILE	A	181	17.527	-3.245	2.811	1.00	0.00	A	C
ATOM	1192	CG1	ILE	A	181	15.715	-3.108	1.001	1.00	0.00	A	C
ATOM	1193	CD1	ILE	A	181	14.548	-2.646	1.872	1.00	0.00	A	C
ATOM	1194	C	ILE	A	181	18.718	-5.394	1.534	1.00	0.00	A	C
ATOM	1195	O	ILE	A	181	19.835	-4.924	1.746	1.00	0.00	A	O
ATOM	1196	N	ILE	A	182	18.370	-6.597	2.019	1.00	0.00	A	N

456/514

Figure 7

ATOM	1197	CA	ILE	A	182	19.317	-7.339	2.804	1.00	0.00	A	C
ATOM	1198	CB	ILE	A	182	18.654	-8.321	3.722	1.00	0.00	A	C
ATOM	1199	CG2	ILE	A	182	19.739	-9.166	4.408	1.00	0.00	A	C
ATOM	1200	CG1	ILE	A	182	17.773	-7.538	4.715	1.00	0.00	A	C
ATOM	1201	CD1	ILE	A	182	16.975	-8.408	5.677	1.00	0.00	A	C
ATOM	1202	C	ILE	A	182	20.395	-8.025	1.995	1.00	0.00	A	C
ATOM	1203	O	ILE	A	182	21.577	-7.929	2.308	1.00	0.00	A	O
ATOM	1204	N	PHE	A	183	19.985	-8.782	0.963	1.00	0.00	A	N
ATOM	1205	CA	PHE	A	183	20.758	-9.640	0.091	1.00	0.00	A	C
ATOM	1206	CB	PHE	A	183	19.961	-10.824	-0.472	1.00	0.00	A	C
ATOM	1207	CG	PHE	A	183	19.428	-11.547	0.715	1.00	0.00	A	C
ATOM	1208	CD1	PHE	A	183	20.287	-12.079	1.647	1.00	0.00	A	C
ATOM	1209	CD2	PHE	A	183	18.072	-11.634	0.926	1.00	0.00	A	C
ATOM	1210	CE1	PHE	A	183	19.800	-12.733	2.754	1.00	0.00	A	C
ATOM	1211	CE2	PHE	A	183	17.581	-12.290	2.028	1.00	0.00	A	C
ATOM	1212	CZ	PHE	A	183	18.443	-12.843	2.943	1.00	0.00	A	C
ATOM	1213	C	PHE	A	183	21.437	-8.960	-1.064	1.00	0.00	A	C
ATOM	1214	O	PHE	A	183	22.320	-9.568	-1.667	1.00	0.00	A	O
ATOM	1215	N	GLN	A	184	20.997	-7.734	-1.430	1.00	0.00	A	N
ATOM	1216	CA	GLN	A	184	21.447	-6.914	-2.535	1.00	0.00	A	C
ATOM	1217	CB	GLN	A	184	23.007	-6.781	-2.601	1.00	0.00	A	C
ATOM	1218	CG	GLN	A	184	23.744	-6.312	-3.874	1.00	0.00	A	C
ATOM	1219	CD	GLN	A	184	23.489	-4.848	-4.216	1.00	0.00	A	C
ATOM	1220	OE1	GLN	A	184	24.020	-4.369	-5.218	1.00	0.00	A	O
ATOM	1221	NE2	GLN	A	184	22.678	-4.120	-3.408	1.00	0.00	A	N
ATOM	1222	C	GLN	A	184	20.832	-7.348	-3.841	1.00	0.00	A	C
ATOM	1223	O	GLN	A	184	20.897	-6.619	-4.829	1.00	0.00	A	O
ATOM	1224	N	LYS	A	185	20.104	-8.481	-3.878	1.00	0.00	A	N
ATOM	1225	CA	LYS	A	185	19.464	-8.794	-5.129	1.00	0.00	A	C
ATOM	1226	CB	LYS	A	185	20.246	-9.779	-6.023	1.00	0.00	A	C
ATOM	1227	CG	LYS	A	185	20.312	-11.207	-5.477	1.00	0.00	A	C
ATOM	1228	CD	LYS	A	185	20.700	-12.254	-6.525	1.00	0.00	A	C
ATOM	1229	CE	LYS	A	185	19.755	-12.279	-7.729	1.00	0.00	A	C
ATOM	1230	NZ	LYS	A	185	19.814	-13.591	-8.409	1.00	0.00	A	N
ATOM	1231	C	LYS	A	185	18.143	-9.434	-4.825	1.00	0.00	A	C
ATOM	1232	O	LYS	A	185	17.999	-10.119	-3.814	1.00	0.00	A	O
ATOM	1233	N	ARG	A	186	17.130	-9.216	-5.688	1.00	0.00	A	N
ATOM	1234	CA	ARG	A	186	15.846	-9.818	-5.452	1.00	0.00	A	C
ATOM	1235	CB	ARG	A	186	14.646	-9.089	-6.078	1.00	0.00	A	C
ATOM	1236	CG	ARG	A	186	14.642	-9.134	-7.603	1.00	0.00	A	C
ATOM	1237	CD	ARG	A	186	13.452	-8.411	-8.235	1.00	0.00	A	C
ATOM	1238	NE	ARG	A	186	13.234	-9.033	-9.568	1.00	0.00	A	N
ATOM	1239	CZ	ARG	A	186	12.307	-10.024	-9.725	1.00	0.00	A	C
ATOM	1240	NH1	ARG	A	186	11.425	-10.310	-8.728	1.00	0.00	A	N
ATOM	1241	NH2	ARG	A	186	12.251	-10.724	-10.894	1.00	0.00	A	N
ATOM	1242	C	ARG	A	186	15.883	-11.178	-6.062	1.00	0.00	A	C
ATOM	1243	O	ARG	A	186	16.784	-11.502	-6.835	1.00	0.00	A	O
ATOM	1244	N	PHE	A	187	14.899	-12.022	-5.701	1.00	0.00	A	N
ATOM	1245	CA	PHE	A	187	14.823	-13.353	-6.218	1.00	0.00	A	C
ATOM	1246	CB	PHE	A	187	14.396	-14.393	-5.174	1.00	0.00	A	C
ATOM	1247	CG	PHE	A	187	15.445	-14.427	-4.124	1.00	0.00	A	C
ATOM	1248	CD1	PHE	A	187	16.583	-15.178	-4.313	1.00	0.00	A	C
ATOM	1249	CD2	PHE	A	187	15.305	-13.695	-2.966	1.00	0.00	A	C
ATOM	1250	CE1	PHE	A	187	17.562	-15.213	-3.348	1.00	0.00	A	C
ATOM	1251	CE2	PHE	A	187	16.282	-13.728	-1.999	1.00	0.00	A	C
ATOM	1252	CZ	PHE	A	187	17.412	-14.488	-2.188	1.00	0.00	A	C
ATOM	1253	C	PHE	A	187	13.749	-13.358	-7.244	1.00	0.00	A	C
ATOM	1254	O	PHE	A	187	12.951	-12.429	-7.334	1.00	0.00	A	O
ATOM	1255	N	ASP	A	188	13.738	-14.410	-8.078	1.00	0.00	A	N
ATOM	1256	CA	ASP	A	188	12.676	-14.566	-9.018	1.00	0.00	A	C
ATOM	1257	CB	ASP	A	188	13.025	-15.600	-10.113	1.00	0.00	A	C
ATOM	1258	CG	ASP	A	188	12.118	-15.484	-11.336	1.00	0.00	A	C
ATOM	1259	OD1	ASP	A	188	11.122	-14.712	-11.308	1.00	0.00	A	O
ATOM	1260	OD2	ASP	A	188	12.425	-16.182	-12.339	1.00	0.00	A	O
ATOM	1261	C	ASP	A	188	11.586	-15.113	-8.159	1.00	0.00	A	C
ATOM	1262	O	ASP	A	188	11.877	-15.768	-7.158	1.00	0.00	A	O
ATOM	1263	N	TYR	A	189	10.311	-14.866	-8.528	1.00	0.00	A	N
ATOM	1264	CA	TYR	A	189	9.149	-15.295	-7.798	1.00	0.00	A	C
ATOM	1265	CB	TYR	A	189	7.835	-14.800	-8.407	1.00	0.00	A	C
ATOM	1266	CG	TYR	A	189	7.828	-13.313	-8.330	1.00	0.00	A	C
ATOM	1267	CD1	TYR	A	189	7.622	-12.679	-7.131	1.00	0.00	A	C
ATOM	1268	CD2	TYR	A	189	8.072	-12.550	-9.445	1.00	0.00	A	C
ATOM	1269	CE1	TYR	A	189	7.603	-11.307	-7.052	1.00	0.00	A	C
ATOM	1270	CE2	TYR	A	189	8.052	-11.177	-9.375	1.00	0.00	A	C
ATOM	1271	CZ	TYR	A	189	7.811	-10.554	-8.176	1.00	0.00	A	C

457/514

Figure 7

ATOM	1272	OH	TYR A 189	7.781	-9.147	-8.096	1.00	0.00	A	O
ATOM	1273	C	TYR A 189	9.097	-16.796	-7.770	1.00	0.00	A	C
ATOM	1274	O	TYR A 189	8.540	-17.383	-6.846	1.00	0.00	A	O
ATOM	1275	N	LYS A 190	9.607	-17.436	-8.839	1.00	0.00	A	N
ATOM	1276	CA	LYS A 190	9.681	-18.858	-8.996	1.00	0.00	A	C
ATOM	1277	CB	LYS A 190	9.928	-19.277	-10.465	1.00	0.00	A	C
ATOM	1278	CG	LYS A 190	11.178	-18.707	-11.152	1.00	0.00	A	C
ATOM	1279	CD	LYS A 190	12.495	-19.425	-10.838	1.00	0.00	A	C
ATOM	1280	CE	LYS A 190	12.546	-20.860	-11.365	1.00	0.00	A	C
ATOM	1281	NZ	LYS A 190	12.536	-20.858	-12.845	1.00	0.00	A	N
ATOM	1282	C	LYS A 190	10.697	-19.523	-8.107	1.00	0.00	A	C
ATOM	1283	O	LYS A 190	10.444	-20.659	-7.704	1.00	0.00	A	O
ATOM	1284	N	ASP A 191	11.845	-18.842	-7.817	1.00	0.00	A	N
ATOM	1285	CA	ASP A 191	13.021	-19.325	-7.108	1.00	0.00	A	C
ATOM	1286	CB	ASP A 191	14.046	-18.203	-6.822	1.00	0.00	A	C
ATOM	1287	CG	ASP A 191	15.431	-18.769	-6.489	1.00	0.00	A	C
ATOM	1288	OD1	ASP A 191	15.598	-19.466	-5.453	1.00	0.00	A	O
ATOM	1289	OD2	ASP A 191	16.364	-18.475	-7.282	1.00	0.00	A	O
ATOM	1290	C	ASP A 191	12.630	-19.948	-5.798	1.00	0.00	A	C
ATOM	1291	O	ASP A 191	11.825	-19.412	-5.040	1.00	0.00	A	O
ATOM	1292	N	GLN A 192	13.194	-21.149	-5.562	1.00	0.00	A	N
ATOM	1293	CA	GLN A 192	12.852	-22.010	-4.468	1.00	0.00	A	C
ATOM	1294	CB	GLN A 192	13.542	-23.382	-4.557	1.00	0.00	A	C
ATOM	1295	CG	GLN A 192	13.132	-24.339	-3.434	1.00	0.00	A	C
ATOM	1296	CD	GLN A 192	11.657	-24.671	-3.621	1.00	0.00	A	C
ATOM	1297	OE1	GLN A 192	11.165	-24.763	-4.743	1.00	0.00	A	O
ATOM	1298	NE2	GLN A 192	10.930	-24.850	-2.487	1.00	0.00	A	N
ATOM	1299	C	GLN A 192	13.177	-21.430	-3.135	1.00	0.00	A	C
ATOM	1300	O	GLN A 192	12.381	-21.607	-2.213	1.00	0.00	A	O
ATOM	1301	N	GLN A 193	14.346	-20.759	-2.990	1.00	0.00	A	N
ATOM	1302	CA	GLN A 193	14.770	-20.209	-1.726	1.00	0.00	A	C
ATOM	1303	CB	GLN A 193	16.227	-19.707	-1.726	1.00	0.00	A	C
ATOM	1304	CG	GLN A 193	16.539	-18.572	-2.694	1.00	0.00	A	C
ATOM	1305	CD	GLN A 193	18.047	-18.385	-2.652	1.00	0.00	A	C
ATOM	1306	OE1	GLN A 193	18.618	-18.155	-1.586	1.00	0.00	A	O
ATOM	1307	NE2	GLN A 193	18.715	-18.502	-3.830	1.00	0.00	A	N
ATOM	1308	C	GLN A 193	13.830	-19.116	-1.321	1.00	0.00	A	C
ATOM	1309	O	GLN A 193	13.512	-18.959	-0.140	1.00	0.00	A	O
ATOM	1310	N	PHE A 194	13.341	-18.367	-2.324	1.00	0.00	A	N
ATOM	1311	CA	PHE A 194	12.399	-17.301	-2.151	1.00	0.00	A	C
ATOM	1312	CB	PHE A 194	12.142	-16.567	-3.489	1.00	0.00	A	C
ATOM	1313	CG	PHE A 194	11.162	-15.445	-3.335	1.00	0.00	A	C
ATOM	1314	CD1	PHE A 194	11.566	-14.219	-2.864	1.00	0.00	A	C
ATOM	1315	CD2	PHE A 194	9.833	-15.614	-3.671	1.00	0.00	A	C
ATOM	1316	CE1	PHE A 194	10.669	-13.182	-2.725	1.00	0.00	A	C
ATOM	1317	CE2	PHE A 194	8.935	-14.584	-3.537	1.00	0.00	A	C
ATOM	1318	CZ	PHE A 194	9.349	-13.364	-3.063	1.00	0.00	A	C
ATOM	1319	C	PHE A 194	11.107	-17.857	-1.645	1.00	0.00	A	C
ATOM	1320	O	PHE A 194	10.526	-17.330	-0.695	1.00	0.00	A	O
ATOM	1321	N	LEU A 195	10.642	-18.965	-2.265	1.00	0.00	A	N
ATOM	1322	CA	LEU A 195	9.385	-19.599	-1.965	1.00	0.00	A	C
ATOM	1323	CB	LEU A 195	9.085	-20.778	-2.909	1.00	0.00	A	C
ATOM	1324	CG	LEU A 195	8.893	-20.358	-4.377	1.00	0.00	A	C
ATOM	1325	CD2	LEU A 195	7.831	-19.253	-4.511	1.00	0.00	A	C
ATOM	1326	CD1	LEU A 195	8.595	-21.572	-5.268	1.00	0.00	A	C
ATOM	1327	C	LEU A 195	9.377	-20.131	-0.566	1.00	0.00	A	C
ATOM	1328	O	LEU A 195	8.346	-20.076	0.103	1.00	0.00	A	O
ATOM	1329	N	ASN A 196	10.519	-20.680	-0.102	1.00	0.00	A	N
ATOM	1330	CA	ASN A 196	10.604	-21.237	1.220	1.00	0.00	A	C
ATOM	1331	CB	ASN A 196	11.915	-22.003	1.475	1.00	0.00	A	C
ATOM	1332	CG	ASN A 196	11.790	-23.360	0.793	1.00	0.00	A	C
ATOM	1333	OD1	ASN A 196	10.851	-24.113	1.049	1.00	0.00	A	O
ATOM	1334	ND2	ASN A 196	12.755	-23.675	-0.110	1.00	0.00	A	N
ATOM	1335	C	ASN A 196	10.478	-20.169	2.262	1.00	0.00	A	C
ATOM	1336	O	ASN A 196	9.814	-20.376	3.277	1.00	0.00	A	O
ATOM	1337	N	LEU A 197	11.124	-19.008	2.031	1.00	0.00	A	N
ATOM	1338	CA	LEU A 197	11.109	-17.901	2.946	1.00	0.00	A	C
ATOM	1339	CB	LEU A 197	12.027	-16.753	2.495	1.00	0.00	A	C
ATOM	1340	CG	LEU A 197	12.022	-15.551	3.457	1.00	0.00	A	C
ATOM	1341	CD2	LEU A 197	12.800	-14.362	2.866	1.00	0.00	A	C
ATOM	1342	CD1	LEU A 197	12.524	-15.953	4.852	1.00	0.00	A	C
ATOM	1343	C	LEU A 197	9.717	-17.350	3.042	1.00	0.00	A	C
ATOM	1344	O	LEU A 197	9.254	-17.039	4.139	1.00	0.00	A	O
ATOM	1345	N	MET A 198	9.033	-17.246	1.884	1.00	0.00	A	N
ATOM	1346	CA	MET A 198	7.690	-16.743	1.772	1.00	0.00	A	C

458/514

Figure 7

ATOM	1347	CB	MET	A	198	7.178	-16.686	0.322	1.00	0.00	A	C
ATOM	1348	CG	MET	A	198	7.590	-15.436	-0.455	1.00	0.00	A	C
ATOM	1349	SD	MET	A	198	6.456	-14.016	-0.301	1.00	0.00	A	S
ATOM	1350	CE	MET	A	198	6.662	-13.651	1.467	1.00	0.00	A	C
ATOM	1351	C	MET	A	198	6.765	-17.643	2.524	1.00	0.00	A	C
ATOM	1352	O	MET	A	198	5.822	-17.180	3.165	1.00	0.00	A	O
ATOM	1353	N	GLU	A	199	7.022	-18.959	2.451	1.00	0.00	A	N
ATOM	1354	CA	GLU	A	199	6.217	-19.957	3.094	1.00	0.00	A	C
ATOM	1355	CB	GLU	A	199	6.702	-21.373	2.753	1.00	0.00	A	C
ATOM	1356	CG	GLU	A	199	5.884	-22.484	3.407	1.00	0.00	A	C
ATOM	1357	CD	GLU	A	199	6.565	-23.800	3.061	1.00	0.00	A	C
ATOM	1358	OE1	GLU	A	199	7.492	-23.780	2.207	1.00	0.00	A	O
ATOM	1359	OE2	GLU	A	199	6.172	-24.842	3.650	1.00	0.00	A	O
ATOM	1360	C	GLU	A	199	6.290	-19.836	4.586	1.00	0.00	A	C
ATOM	1361	O	GLU	A	199	5.263	-19.899	5.266	1.00	0.00	A	O
ATOM	1362	N	LYS	A	200	7.516	-19.668	5.125	1.00	0.00	A	N
ATOM	1363	CA	LYS	A	200	7.740	-19.580	6.544	1.00	0.00	A	C
ATOM	1364	CB	LYS	A	200	9.226	-19.594	6.941	1.00	0.00	A	C
ATOM	1365	CG	LYS	A	200	9.765	-21.009	7.161	1.00	0.00	A	C
ATOM	1366	CD	LYS	A	200	9.696	-21.899	5.921	1.00	0.00	A	C
ATOM	1367	CE	LYS	A	200	10.178	-23.330	6.161	1.00	0.00	A	C
ATOM	1368	NZ	LYS	A	200	9.128	-24.106	6.855	1.00	0.00	A	N
ATOM	1369	C	LYS	A	200	7.112	-18.343	7.107	1.00	0.00	A	C
ATOM	1370	O	LYS	A	200	6.595	-18.374	8.225	1.00	0.00	A	O
ATOM	1371	N	LEU	A	201	7.155	-17.227	6.350	1.00	0.00	A	N
ATOM	1372	CA	LEU	A	201	6.585	-15.982	6.794	1.00	0.00	A	C
ATOM	1373	CB	LEU	A	201	6.881	-14.819	5.829	1.00	0.00	A	C
ATOM	1374	CG	LEU	A	201	8.357	-14.392	5.798	1.00	0.00	A	C
ATOM	1375	CD2	LEU	A	201	8.859	-14.061	7.213	1.00	0.00	A	C
ATOM	1376	CD1	LEU	A	201	8.589	-13.230	4.821	1.00	0.00	A	C
ATOM	1377	C	LEU	A	201	5.090	-16.095	6.894	1.00	0.00	A	C
ATOM	1378	O	LEU	A	201	4.499	-15.668	7.882	1.00	0.00	A	O
ATOM	1379	N	ASN	A	202	4.455	-16.695	5.868	1.00	0.00	A	N
ATOM	1380	CA	ASN	A	202	3.026	-16.801	5.782	1.00	0.00	A	C
ATOM	1381	CB	ASN	A	202	2.547	-17.315	4.414	1.00	0.00	A	C
ATOM	1382	CG	ASN	A	202	2.864	-16.232	3.389	1.00	0.00	A	C
ATOM	1383	OD1	ASN	A	202	3.230	-16.523	2.251	1.00	0.00	A	O
ATOM	1384	ND2	ASN	A	202	2.726	-14.944	3.803	1.00	0.00	A	N
ATOM	1385	C	ASN	A	202	2.477	-17.696	6.844	1.00	0.00	A	C
ATOM	1386	O	ASN	A	202	1.369	-17.452	7.324	1.00	0.00	A	O
ATOM	1387	N	GLU	A	203	3.226	-18.762	7.208	1.00	0.00	A	N
ATOM	1388	CA	GLU	A	203	2.800	-19.708	8.204	1.00	0.00	A	C
ATOM	1389	CB	GLU	A	203	3.775	-20.868	8.434	1.00	0.00	A	C
ATOM	1390	CG	GLU	A	203	3.867	-21.883	7.301	1.00	0.00	A	C
ATOM	1391	CD	GLU	A	203	4.623	-23.064	7.885	1.00	0.00	A	C
ATOM	1392	OE1	GLU	A	203	4.607	-23.195	9.139	1.00	0.00	A	O
ATOM	1393	OE2	GLU	A	203	5.222	-23.846	7.101	1.00	0.00	A	O
ATOM	1394	C	GLU	A	203	2.718	-19.029	9.527	1.00	0.00	A	C
ATOM	1395	O	GLU	A	203	1.793	-19.285	10.298	1.00	0.00	A	O
ATOM	1396	N	ASN	A	204	3.699	-18.150	9.806	1.00	0.00	A	N
ATOM	1397	CA	ASN	A	204	3.753	-17.428	11.043	1.00	0.00	A	C
ATOM	1398	CB	ASN	A	204	5.062	-16.651	11.235	1.00	0.00	A	C
ATOM	1399	CG	ASN	A	204	6.110	-17.698	11.576	1.00	0.00	A	C
ATOM	1400	OD1	ASN	A	204	5.790	-18.866	11.789	1.00	0.00	A	O
ATOM	1401	ND2	ASN	A	204	7.397	-17.276	11.649	1.00	0.00	A	N
ATOM	1402	C	ASN	A	204	2.593	-16.483	11.133	1.00	0.00	A	C
ATOM	1403	O	ASN	A	204	2.084	-16.233	12.225	1.00	0.00	A	O
ATOM	1404	N	ILE	A	205	2.160	-15.935	9.978	1.00	0.00	A	N
ATOM	1405	CA	ILE	A	205	1.043	-15.032	9.895	1.00	0.00	A	C
ATOM	1406	CB	ILE	A	205	0.821	-14.526	8.496	1.00	0.00	A	C
ATOM	1407	CG2	ILE	A	205	-0.465	-13.683	8.486	1.00	0.00	A	C
ATOM	1408	CG1	ILE	A	205	2.048	-13.751	7.990	1.00	0.00	A	C
ATOM	1409	CD1	ILE	A	205	2.014	-13.441	6.497	1.00	0.00	A	C
ATOM	1410	C	ILE	A	205	-0.207	-15.773	10.285	1.00	0.00	A	C
ATOM	1411	O	ILE	A	205	-1.058	-15.248	11.001	1.00	0.00	A	O
ATOM	1412	N	ARG	A	206	-0.349	-17.018	9.794	1.00	0.00	A	N
ATOM	1413	CA	ARG	A	206	-1.512	-17.818	10.060	1.00	0.00	A	C
ATOM	1414	CB	ARG	A	206	-1.550	-19.113	9.233	1.00	0.00	A	C
ATOM	1415	CG	ARG	A	206	-2.792	-19.960	9.513	1.00	0.00	A	C
ATOM	1416	CD	ARG	A	206	-2.861	-21.241	8.680	1.00	0.00	A	C
ATOM	1417	NE	ARG	A	206	-1.851	-22.188	9.227	1.00	0.00	A	N
ATOM	1418	CZ	ARG	A	206	-1.775	-23.454	8.724	1.00	0.00	A	C
ATOM	1419	NH1	ARG	A	206	-2.620	-23.838	7.723	1.00	0.00	A	N
ATOM	1420	NH2	ARG	A	206	-0.857	-24.333	9.220	1.00	0.00	A	N
ATOM	1421	C	ARG	A	206	-1.585	-18.212	11.506	1.00	0.00	A	C

Figure 7

ATOM	1422	O	ARG A 206	-2.675	-18.251	12.075	1.00	0.00	A	O
ATOM	1423	N	ILE A 207	-0.426	-18.547	12.119	1.00	0.00	A	N
ATOM	1424	CA	ILE A 207	-0.372	-18.990	13.489	1.00	0.00	A	C
ATOM	1425	CB	ILE A 207	1.017	-19.399	13.895	1.00	0.00	A	C
ATOM	1426	CG2	ILE A 207	1.002	-19.685	15.407	1.00	0.00	A	C
ATOM	1427	CG1	ILE A 207	1.504	-20.587	13.041	1.00	0.00	A	C
ATOM	1428	CD1	ILE A 207	3.014	-20.820	13.098	1.00	0.00	A	C
ATOM	1429	C	ILE A 207	-0.791	-17.869	14.399	1.00	0.00	A	C
ATOM	1430	O	ILE A 207	-1.642	-18.049	15.268	1.00	0.00	A	O
ATOM	1431	N	VAL A 208	-0.231	-16.668	14.174	1.00	0.00	A	N
ATOM	1432	CA	VAL A 208	-0.501	-15.523	14.998	1.00	0.00	A	C
ATOM	1433	CB	VAL A 208	0.429	-14.360	14.762	1.00	0.00	A	C
ATOM	1434	CG1	VAL A 208	1.865	-14.819	15.065	1.00	0.00	A	C
ATOM	1435	CG2	VAL A 208	0.232	-13.801	13.347	1.00	0.00	A	C
ATOM	1436	C	VAL A 208	-1.913	-15.047	14.827	1.00	0.00	A	C
ATOM	1437	O	VAL A 208	-2.465	-14.405	15.718	1.00	0.00	A	O
ATOM	1438	N	SER A 209	-2.520	-15.290	13.653	1.00	0.00	A	N
ATOM	1439	CA	SER A 209	-3.838	-14.790	13.383	1.00	0.00	A	C
ATOM	1440	CB	SER A 209	-4.183	-14.734	11.883	1.00	0.00	A	C
ATOM	1441	OG	SER A 209	-4.351	-16.042	11.362	1.00	0.00	A	O
ATOM	1442	C	SER A 209	-4.917	-15.579	14.059	1.00	0.00	A	C
ATOM	1443	O	SER A 209	-6.078	-15.181	13.971	1.00	0.00	A	O
ATOM	1444	N	THR A 210	-4.598	-16.720	14.711	1.00	0.00	A	N
ATOM	1445	CA	THR A 210	-5.660	-17.479	15.312	1.00	0.00	A	C
ATOM	1446	CB	THR A 210	-5.330	-18.920	15.617	1.00	0.00	A	C
ATOM	1447	OG1	THR A 210	-6.487	-19.592	16.089	1.00	0.00	A	O
ATOM	1448	CG2	THR A 210	-4.195	-19.013	16.646	1.00	0.00	A	C
ATOM	1449	C	THR A 210	-6.136	-16.772	16.539	1.00	0.00	A	C
ATOM	1450	O	THR A 210	-5.370	-16.296	17.376	1.00	0.00	A	O
ATOM	1451	N	PRO A 211	-7.445	-16.724	16.627	1.00	0.00	A	N
ATOM	1452	CA	PRO A 211	-8.167	-16.035	17.665	1.00	0.00	A	C
ATOM	1453	CD	PRO A 211	-8.288	-17.029	15.486	1.00	0.00	A	C
ATOM	1454	CB	PRO A 211	-9.641	-16.064	17.248	1.00	0.00	A	C
ATOM	1455	CG	PRO A 211	-9.702	-17.069	16.080	1.00	0.00	A	C
ATOM	1456	C	PRO A 211	-7.895	-16.573	19.032	1.00	0.00	A	C
ATOM	1457	O	PRO A 211	-8.068	-15.843	20.004	1.00	0.00	A	O
ATOM	1458	N	TRP A 212	-7.452	-17.837	19.136	1.00	0.00	A	N
ATOM	1459	CA	TRP A 212	-7.133	-18.437	20.389	1.00	0.00	A	C
ATOM	1460	CB	TRP A 212	-7.321	-19.972	20.444	1.00	0.00	A	C
ATOM	1461	CG	TRP A 212	-6.257	-20.948	20.007	1.00	0.00	A	C
ATOM	1462	CD2	TRP A 212	-5.772	-21.951	20.914	1.00	0.00	A	C
ATOM	1463	CD1	TRP A 212	-5.700	-21.222	18.792	1.00	0.00	A	C
ATOM	1464	NE1	TRP A 212	-4.877	-22.324	18.894	1.00	0.00	A	N
ATOM	1465	CE2	TRP A 212	-4.924	-22.787	20.195	1.00	0.00	A	C
ATOM	1466	CE3	TRP A 212	-6.036	-22.169	22.235	1.00	0.00	A	C
ATOM	1467	CZ2	TRP A 212	-4.321	-23.862	20.792	1.00	0.00	A	C
ATOM	1468	CZ3	TRP A 212	-5.414	-23.239	22.840	1.00	0.00	A	C
ATOM	1469	CH2	TRP A 212	-4.572	-24.070	22.132	1.00	0.00	A	C
ATOM	1470	C	TRP A 212	-5.810	-17.936	20.931	1.00	0.00	A	C
ATOM	1471	O	TRP A 212	-5.418	-18.323	22.025	1.00	0.00	A	O
ATOM	1472	N	ILE A 213	-5.039	-17.133	20.157	1.00	0.00	A	N
ATOM	1473	CA	ILE A 213	-3.782	-16.550	20.577	1.00	0.00	A	C
ATOM	1474	CB	ILE A 213	-3.085	-15.800	19.449	1.00	0.00	A	C
ATOM	1475	CG2	ILE A 213	-1.956	-14.890	19.967	1.00	0.00	A	C
ATOM	1476	CG1	ILE A 213	-2.551	-16.808	18.422	1.00	0.00	A	C
ATOM	1477	CD1	ILE A 213	-1.492	-17.750	18.993	1.00	0.00	A	C
ATOM	1478	C	ILE A 213	-4.008	-15.645	21.769	1.00	0.00	A	C
ATOM	1479	O	ILE A 213	-3.160	-15.549	22.652	1.00	0.00	A	O
ATOM	1480	N	GLN A 214	-5.153	-14.945	21.836	1.00	0.00	A	N
ATOM	1481	CA	GLN A 214	-5.457	-14.070	22.941	1.00	0.00	A	C
ATOM	1482	CB	GLN A 214	-6.740	-13.247	22.758	1.00	0.00	A	C
ATOM	1483	CG	GLN A 214	-6.602	-12.139	21.723	1.00	0.00	A	C
ATOM	1484	CD	GLN A 214	-5.381	-11.319	22.104	1.00	0.00	A	C
ATOM	1485	OE1	GLN A 214	-4.546	-11.050	21.245	1.00	0.00	A	O
ATOM	1486	NE2	GLN A 214	-5.263	-10.925	23.403	1.00	0.00	A	N
ATOM	1487	C	GLN A 214	-5.645	-14.816	24.225	1.00	0.00	A	C
ATOM	1488	O	GLN A 214	-5.421	-14.233	25.291	1.00	0.00	A	O
ATOM	1489	N	ILE A 215	-6.115	-16.085	24.148	1.00	0.00	A	N
ATOM	1490	CA	ILE A 215	-6.365	-16.852	25.339	1.00	0.00	A	C
ATOM	1491	CB	ILE A 215	-7.156	-18.137	25.198	1.00	0.00	A	C
ATOM	1492	CG2	ILE A 215	-6.267	-19.305	24.759	1.00	0.00	A	C
ATOM	1493	CG1	ILE A 215	-7.805	-18.446	26.559	1.00	0.00	A	C
ATOM	1494	CD1	ILE A 215	-8.872	-19.539	26.500	1.00	0.00	A	C
ATOM	1495	C	ILE A 215	-5.079	-17.105	26.070	1.00	0.00	A	C
ATOM	1496	O	ILE A 215	-5.074	-17.149	27.299	1.00	0.00	A	O

Figure 7

ATOM	1497	N	CYS	A	216	-3.955	-17.277	25.346	1.00	0.00	A	N
ATOM	1498	CA	CYS	A	216	-2.724	-17.492	26.047	1.00	0.00	A	C
ATOM	1499	CB	CYS	A	216	-1.613	-18.198	25.246	1.00	0.00	A	C
ATOM	1500	SG	CYS	A	216	-0.812	-17.176	24.004	1.00	0.00	A	S
ATOM	1501	C	CYS	A	216	-2.228	-16.236	26.737	1.00	0.00	A	C
ATOM	1502	O	CYS	A	216	-1.534	-16.328	27.749	1.00	0.00	A	O
ATOM	1503	N	ASN	A	217	-2.551	-15.033	26.206	1.00	0.00	A	N
ATOM	1504	CA	ASN	A	217	-2.133	-13.787	26.807	1.00	0.00	A	C
ATOM	1505	CB	ASN	A	217	-2.460	-12.582	25.911	1.00	0.00	A	C
ATOM	1506	CG	ASN	A	217	-1.603	-12.714	24.659	1.00	0.00	A	C
ATOM	1507	OD1	ASN	A	217	-0.570	-13.378	24.658	1.00	0.00	A	O
ATOM	1508	ND2	ASN	A	217	-2.051	-12.056	23.555	1.00	0.00	A	N
ATOM	1509	C	ASN	A	217	-2.836	-13.610	28.123	1.00	0.00	A	C
ATOM	1510	O	ASN	A	217	-2.305	-13.033	29.073	1.00	0.00	A	O
ATOM	1511	N	ASN	A	218	-4.091	-14.065	28.171	1.00	0.00	A	N
ATOM	1512	CA	ASN	A	218	-4.903	-13.962	29.338	1.00	0.00	A	C
ATOM	1513	CB	ASN	A	218	-6.361	-14.220	28.949	1.00	0.00	A	C
ATOM	1514	CG	ASN	A	218	-7.223	-13.341	29.819	1.00	0.00	A	C
ATOM	1515	OD1	ASN	A	218	-7.021	-12.129	29.893	1.00	0.00	A	O
ATOM	1516	ND2	ASN	A	218	-8.227	-13.962	30.480	1.00	0.00	A	N
ATOM	1517	C	ASN	A	218	-4.440	-14.972	30.351	1.00	0.00	A	C
ATOM	1518	O	ASN	A	218	-4.311	-14.666	31.535	1.00	0.00	A	O
ATOM	1519	N	PHE	A	219	-4.180	-16.224	29.910	1.00	0.00	A	N
ATOM	1520	CA	PHE	A	219	-3.725	-17.223	30.833	1.00	0.00	A	C
ATOM	1521	CB	PHE	A	219	-4.716	-18.388	31.015	1.00	0.00	A	C
ATOM	1522	CG	PHE	A	219	-5.881	-17.883	31.797	1.00	0.00	A	C
ATOM	1523	CD1	PHE	A	219	-5.871	-17.933	33.174	1.00	0.00	A	C
ATOM	1524	CD2	PHE	A	219	-6.977	-17.349	31.164	1.00	0.00	A	C
ATOM	1525	CE1	PHE	A	219	-6.939	-17.470	33.908	1.00	0.00	A	C
ATOM	1526	CE2	PHE	A	219	-8.048	-16.882	31.895	1.00	0.00	A	C
ATOM	1527	CZ	PHE	A	219	-8.035	-16.940	33.270	1.00	0.00	A	C
ATOM	1528	C	PHE	A	219	-2.476	-17.826	30.295	1.00	0.00	A	C
ATOM	1529	O	PHE	A	219	-2.527	-18.866	29.642	1.00	0.00	A	O
ATOM	1530	N	PRO	A	220	-1.353	-17.252	30.645	1.00	0.00	A	N
ATOM	1531	CA	PRO	A	220	-0.036	-17.660	30.210	1.00	0.00	A	C
ATOM	1532	CD	PRO	A	220	-1.305	-16.234	31.681	1.00	0.00	A	C
ATOM	1533	CB	PRO	A	220	0.916	-16.628	30.810	1.00	0.00	A	C
ATOM	1534	CG	PRO	A	220	0.179	-16.135	32.066	1.00	0.00	A	C
ATOM	1535	C	PRO	A	220	0.328	-19.057	30.633	1.00	0.00	A	C
ATOM	1536	O	PRO	A	220	1.188	-19.653	29.998	1.00	0.00	A	O
ATOM	1537	N	THR	A	221	-0.321	-19.602	31.679	1.00	0.00	A	N
ATOM	1538	CA	THR	A	221	-0.074	-20.917	32.195	1.00	0.00	A	C
ATOM	1539	CB	THR	A	221	-0.915	-21.182	33.408	1.00	0.00	A	C
ATOM	1540	OG1	THR	A	221	-0.675	-20.174	34.379	1.00	0.00	A	O
ATOM	1541	CG2	THR	A	221	-0.559	-22.558	34.002	1.00	0.00	A	C
ATOM	1542	C	THR	A	221	-0.415	-21.945	31.150	1.00	0.00	A	C
ATOM	1543	O	THR	A	221	0.209	-23.005	31.091	1.00	0.00	A	O
ATOM	1544	N	ILE	A	222	-1.404	-21.642	30.282	1.00	0.00	A	N
ATOM	1545	CA	ILE	A	222	-1.888	-22.525	29.254	1.00	0.00	A	C
ATOM	1546	CB	ILE	A	222	-3.080	-22.069	28.463	1.00	0.00	A	C
ATOM	1547	CG2	ILE	A	222	-4.174	-21.688	29.480	1.00	0.00	A	C
ATOM	1548	CG1	ILE	A	222	-2.746	-20.960	27.457	1.00	0.00	A	C
ATOM	1549	CD1	ILE	A	222	-3.861	-20.768	26.435	1.00	0.00	A	C
ATOM	1550	C	ILE	A	222	-0.832	-22.827	28.246	1.00	0.00	A	C
ATOM	1551	O	ILE	A	222	-0.969	-23.833	27.555	1.00	0.00	A	O
ATOM	1552	N	ILE	A	223	0.178	-21.939	28.075	1.00	0.00	A	N
ATOM	1553	CA	ILE	A	223	1.220	-22.092	27.089	1.00	0.00	A	C
ATOM	1554	CB	ILE	A	223	2.099	-20.860	26.962	1.00	0.00	A	C
ATOM	1555	CG2	ILE	A	223	3.180	-20.820	28.042	1.00	0.00	A	C
ATOM	1556	CG1	ILE	A	223	2.716	-20.778	25.564	1.00	0.00	A	C
ATOM	1557	CD1	ILE	A	223	3.268	-19.381	25.274	1.00	0.00	A	C
ATOM	1558	C	ILE	A	223	1.998	-23.361	27.369	1.00	0.00	A	C
ATOM	1559	O	ILE	A	223	2.366	-24.067	26.432	1.00	0.00	A	O
ATOM	1560	N	ASP	A	224	2.221	-23.713	28.656	1.00	0.00	A	N
ATOM	1561	CA	ASP	A	224	2.914	-24.908	29.051	1.00	0.00	A	C
ATOM	1562	CB	ASP	A	224	3.186	-24.969	30.565	1.00	0.00	A	C
ATOM	1563	CG	ASP	A	224	4.385	-24.070	30.835	1.00	0.00	A	C
ATOM	1564	OD1	ASP	A	224	5.424	-24.277	30.150	1.00	0.00	A	O
ATOM	1565	OD2	ASP	A	224	4.293	-23.185	31.727	1.00	0.00	A	O
ATOM	1566	C	ASP	A	224	2.127	-26.123	28.655	1.00	0.00	A	C
ATOM	1567	O	ASP	A	224	2.695	-27.164	28.328	1.00	0.00	A	O
ATOM	1568	N	TYR	A	225	0.790	-26.030	28.726	1.00	0.00	A	N
ATOM	1569	CA	TYR	A	225	-0.099	-27.097	28.365	1.00	0.00	A	C
ATOM	1570	CB	TYR	A	225	-1.527	-26.880	28.861	1.00	0.00	A	C
ATOM	1571	CG	TYR	A	225	-1.401	-27.087	30.324	1.00	0.00	A	C

461/514

Figure 7

ATOM	1572	CD1	TYR	A	225	-1.489	-28.364	30.826	1.00	0.00	A	C
ATOM	1573	CD2	TYR	A	225	-1.164	-26.027	31.172	1.00	0.00	A	C
ATOM	1574	CE1	TYR	A	225	-1.363	-28.580	32.177	1.00	0.00	A	C
ATOM	1575	CE2	TYR	A	225	-1.039	-26.238	32.521	1.00	0.00	A	C
ATOM	1576	CZ	TYR	A	225	-1.138	-27.515	33.022	1.00	0.00	A	C
ATOM	1577	OH	TYR	A	225	-1.009	-27.737	34.407	1.00	0.00	A	O
ATOM	1578	C	TYR	A	225	-0.133	-27.290	26.893	1.00	0.00	A	C
ATOM	1579	O	TYR	A	225	-0.163	-28.424	26.415	1.00	0.00	A	O
ATOM	1580	N	PHE	A	226	-0.139	-26.186	26.117	1.00	0.00	A	N
ATOM	1581	CA	PHE	A	226	-0.174	-26.284	24.689	1.00	0.00	A	C
ATOM	1582	CB	PHE	A	226	-1.323	-25.467	24.064	1.00	0.00	A	C
ATOM	1583	CG	PHE	A	226	-2.607	-25.939	24.662	1.00	0.00	A	C
ATOM	1584	CD1	PHE	A	226	-3.280	-27.012	24.129	1.00	0.00	A	C
ATOM	1585	CD2	PHE	A	226	-3.139	-25.306	25.761	1.00	0.00	A	C
ATOM	1586	CE1	PHE	A	226	-4.458	-27.453	24.683	1.00	0.00	A	C
ATOM	1587	CE2	PHE	A	226	-4.317	-25.741	26.320	1.00	0.00	A	C
ATOM	1588	CZ	PHE	A	226	-4.983	-26.812	25.777	1.00	0.00	A	C
ATOM	1589	C	PHE	A	226	1.095	-25.679	24.164	1.00	0.00	A	C
ATOM	1590	O	PHE	A	226	1.091	-24.533	23.717	1.00	0.00	A	O
ATOM	1591	N	PRO	A	227	2.192	-26.393	24.120	1.00	0.00	A	N
ATOM	1592	CA	PRO	A	227	3.415	-25.835	23.624	1.00	0.00	A	C
ATOM	1593	CD	PRO	A	227	2.404	-27.683	24.760	1.00	0.00	A	C
ATOM	1594	CB	PRO	A	227	4.532	-26.746	24.130	1.00	0.00	A	C
ATOM	1595	CG	PRO	A	227	3.831	-28.089	24.370	1.00	0.00	A	C
ATOM	1596	C	PRO	A	227	3.429	-25.705	22.132	1.00	0.00	A	C
ATOM	1597	O	PRO	A	227	4.389	-25.115	21.647	1.00	0.00	A	O
ATOM	1598	N	GLY	A	228	2.418	-26.252	21.407	1.00	0.00	A	N
ATOM	1599	CA	GLY	A	228	2.378	-26.347	19.965	1.00	0.00	A	C
ATOM	1600	C	GLY	A	228	2.496	-25.005	19.307	1.00	0.00	A	C
ATOM	1601	O	GLY	A	228	3.280	-24.851	18.372	1.00	0.00	A	O
ATOM	1602	N	THR	A	229	1.740	-23.998	19.781	1.00	0.00	A	N
ATOM	1603	CA	THR	A	229	1.954	-22.696	19.228	1.00	0.00	A	C
ATOM	1604	CB	THR	A	229	0.873	-21.692	19.523	1.00	0.00	A	C
ATOM	1605	OG1	THR	A	229	0.652	-21.591	20.922	1.00	0.00	A	O
ATOM	1606	CG2	THR	A	229	-0.413	-22.095	18.793	1.00	0.00	A	C
ATOM	1607	C	THR	A	229	3.190	-22.229	19.904	1.00	0.00	A	C
ATOM	1608	O	THR	A	229	3.421	-22.528	21.068	1.00	0.00	A	O
ATOM	1609	N	HIS	A	230	4.009	-21.479	19.161	1.00	0.00	A	N
ATOM	1610	CA	HIS	A	230	5.304	-20.950	19.482	1.00	0.00	A	C
ATOM	1611	ND1	HIS	A	230	4.923	-21.103	23.166	1.00	0.00	A	N
ATOM	1612	CG	HIS	A	230	5.799	-20.873	22.123	1.00	0.00	A	C
ATOM	1613	CB	HIS	A	230	5.435	-20.162	20.831	1.00	0.00	A	C
ATOM	1614	NE2	HIS	A	230	6.885	-21.904	23.824	1.00	0.00	A	N
ATOM	1615	CD2	HIS	A	230	6.995	-21.371	22.556	1.00	0.00	A	C
ATOM	1616	CE1	HIS	A	230	5.622	-21.720	24.153	1.00	0.00	A	C
ATOM	1617	C	HIS	A	230	6.381	-21.994	19.387	1.00	0.00	A	C
ATOM	1618	O	HIS	A	230	7.556	-21.638	19.402	1.00	0.00	A	O
ATOM	1619	N	ASN	A	231	6.053	-23.298	19.277	1.00	0.00	A	N
ATOM	1620	CA	ASN	A	231	7.104	-24.210	18.945	1.00	0.00	A	C
ATOM	1621	CB	ASN	A	231	6.831	-25.690	19.269	1.00	0.00	A	C
ATOM	1622	CG	ASN	A	231	7.184	-25.905	20.735	1.00	0.00	A	C
ATOM	1623	OD1	ASN	A	231	7.846	-25.072	21.349	1.00	0.00	A	O
ATOM	1624	ND2	ASN	A	231	6.734	-27.054	21.309	1.00	0.00	A	N
ATOM	1625	C	ASN	A	231	7.253	-24.067	17.473	1.00	0.00	A	C
ATOM	1626	O	ASN	A	231	8.350	-24.147	16.931	1.00	0.00	A	O
ATOM	1627	N	LYS	A	232	6.106	-23.868	16.797	1.00	0.00	A	N
ATOM	1628	CA	LYS	A	232	6.031	-23.700	15.375	1.00	0.00	A	C
ATOM	1629	CB	LYS	A	232	4.571	-23.564	14.913	1.00	0.00	A	C
ATOM	1630	CG	LYS	A	232	4.305	-23.931	13.456	1.00	0.00	A	C
ATOM	1631	CD	LYS	A	232	4.309	-25.442	13.223	1.00	0.00	A	C
ATOM	1632	CE	LYS	A	232	3.571	-25.860	11.953	1.00	0.00	A	C
ATOM	1633	NZ	LYS	A	232	4.454	-25.708	10.776	1.00	0.00	A	N
ATOM	1634	C	LYS	A	232	6.709	-22.411	15.034	1.00	0.00	A	C
ATOM	1635	O	LYS	A	232	7.432	-22.312	14.044	1.00	0.00	A	O
ATOM	1636	N	LEU	A	233	6.451	-21.381	15.863	1.00	0.00	A	N
ATOM	1637	CA	LEU	A	233	6.989	-20.067	15.664	1.00	0.00	A	C
ATOM	1638	CB	LEU	A	233	6.398	-19.042	16.646	1.00	0.00	A	C
ATOM	1639	CG	LEU	A	233	4.890	-18.816	16.434	1.00	0.00	A	C
ATOM	1640	CD2	LEU	A	233	4.588	-18.454	14.974	1.00	0.00	A	C
ATOM	1641	CD1	LEU	A	233	4.328	-17.788	17.429	1.00	0.00	A	C
ATOM	1642	C	LEU	A	233	8.468	-20.088	15.851	1.00	0.00	A	C
ATOM	1643	O	LEU	A	233	9.198	-19.460	15.084	1.00	0.00	A	O
ATOM	1644	N	LEU	A	234	8.930	-20.814	16.888	1.00	0.00	A	N
ATOM	1645	CA	LEU	A	234	10.317	-20.869	17.245	1.00	0.00	A	C
ATOM	1646	CB	LEU	A	234	10.507	-21.570	18.611	1.00	0.00	A	C

Figure 7

ATOM	1647	CG	LEU	A	234	11.878	-21.360	19.286	1.00	0.00	A	C
ATOM	1648	CD2	LEU	A	234	12.235	-19.866	19.270	1.00	0.00	A	C
ATOM	1649	CD1	LEU	A	234	12.999	-22.238	18.712	1.00	0.00	A	C
ATOM	1650	C	LEU	A	234	11.066	-21.586	16.162	1.00	0.00	A	C
ATOM	1651	O	LEU	A	234	12.174	-21.196	15.794	1.00	0.00	A	O
ATOM	1652	N	LYS	A	235	10.454	-22.656	15.625	1.00	0.00	A	N
ATOM	1653	CA	LYS	A	235	11.022	-23.479	14.601	1.00	0.00	A	C
ATOM	1654	CB	LYS	A	235	10.134	-24.692	14.279	1.00	0.00	A	C
ATOM	1655	CG	LYS	A	235	10.825	-25.763	13.431	1.00	0.00	A	C
ATOM	1656	CD	LYS	A	235	11.908	-26.535	14.187	1.00	0.00	A	C
ATOM	1657	CE	LYS	A	235	11.408	-27.181	15.480	1.00	0.00	A	C
ATOM	1658	NZ	LYS	A	235	10.339	-28.160	15.179	1.00	0.00	A	N
ATOM	1659	C	LYS	A	235	11.163	-22.690	13.337	1.00	0.00	A	C
ATOM	1660	O	LYS	A	235	12.196	-22.761	12.675	1.00	0.00	A	O
ATOM	1661	N	ASN	A	236	10.114	-21.923	12.975	1.00	0.00	A	N
ATOM	1662	CA	ASN	A	236	10.099	-21.182	11.740	1.00	0.00	A	C
ATOM	1663	CB	ASN	A	236	8.733	-20.569	11.377	1.00	0.00	A	C
ATOM	1664	CG	ASN	A	236	7.857	-21.628	10.713	1.00	0.00	A	C
ATOM	1665	OD1	ASN	A	236	6.818	-21.293	10.149	1.00	0.00	A	O
ATOM	1666	ND2	ASN	A	236	8.277	-22.922	10.760	1.00	0.00	A	N
ATOM	1667	C	ASN	A	236	11.099	-20.078	11.753	1.00	0.00	A	C
ATOM	1668	O	ASN	A	236	11.741	-19.834	10.732	1.00	0.00	A	O
ATOM	1669	N	LEU	A	237	11.232	-19.393	12.908	1.00	0.00	A	N
ATOM	1670	CA	LEU	A	237	12.159	-18.307	13.070	1.00	0.00	A	C
ATOM	1671	CB	LEU	A	237	12.061	-17.616	14.441	1.00	0.00	A	C
ATOM	1672	CG	LEU	A	237	10.738	-16.856	14.661	1.00	0.00	A	C
ATOM	1673	CD2	LEU	A	237	10.465	-15.867	13.520	1.00	0.00	A	C
ATOM	1674	CD1	LEU	A	237	10.703	-16.184	16.044	1.00	0.00	A	C
ATOM	1675	C	LEU	A	237	13.541	-18.858	12.940	1.00	0.00	A	C
ATOM	1676	O	LEU	A	237	14.416	-18.208	12.372	1.00	0.00	A	O
ATOM	1677	N	ALA	A	238	13.745	-20.085	13.455	1.00	0.00	A	N
ATOM	1678	CA	ALA	A	238	15.005	-20.769	13.427	1.00	0.00	A	C
ATOM	1679	CB	ALA	A	238	14.968	-22.113	14.174	1.00	0.00	A	C
ATOM	1680	C	ALA	A	238	15.401	-21.065	12.015	1.00	0.00	A	C
ATOM	1681	O	ALA	A	238	16.576	-20.942	11.671	1.00	0.00	A	O
ATOM	1682	N	PHE	A	239	14.414	-21.471	11.186	1.00	0.00	A	N
ATOM	1683	CA	PHE	A	239	14.604	-21.839	9.808	1.00	0.00	A	C
ATOM	1684	CB	PHE	A	239	13.276	-22.306	9.176	1.00	0.00	A	C
ATOM	1685	CG	PHE	A	239	13.502	-22.917	7.832	1.00	0.00	A	C
ATOM	1686	CD1	PHE	A	239	13.753	-24.266	7.731	1.00	0.00	A	C
ATOM	1687	CD2	PHE	A	239	13.456	-22.164	6.677	1.00	0.00	A	C
ATOM	1688	CE1	PHE	A	239	13.960	-24.854	6.505	1.00	0.00	A	C
ATOM	1689	CE2	PHE	A	239	13.664	-22.746	5.450	1.00	0.00	A	C
ATOM	1690	CZ	PHE	A	239	13.916	-24.095	5.360	1.00	0.00	A	C
ATOM	1691	C	PHE	A	239	15.079	-20.628	9.061	1.00	0.00	A	C
ATOM	1692	O	PHE	A	239	16.031	-20.700	8.284	1.00	0.00	A	O
ATOM	1693	N	MET	A	240	14.411	-19.486	9.305	1.00	0.00	A	N
ATOM	1694	CA	MET	A	240	14.716	-18.244	8.649	1.00	0.00	A	C
ATOM	1695	CB	MET	A	240	13.701	-17.140	8.980	1.00	0.00	A	C
ATOM	1696	CG	MET	A	240	12.478	-17.167	8.060	1.00	0.00	A	C
ATOM	1697	SD	MET	A	240	10.919	-16.676	8.857	1.00	0.00	A	S
ATOM	1698	CE	MET	A	240	11.585	-15.158	9.594	1.00	0.00	A	C
ATOM	1699	C	MET	A	240	16.074	-17.748	9.022	1.00	0.00	A	C
ATOM	1700	O	MET	A	240	16.809	-17.290	8.150	1.00	0.00	A	O
ATOM	1701	N	GLU	A	241	16.433	-17.853	10.320	1.00	0.00	A	N
ATOM	1702	CA	GLU	A	241	17.681	-17.389	10.864	1.00	0.00	A	C
ATOM	1703	CB	GLU	A	241	17.790	-17.587	12.386	1.00	0.00	A	C
ATOM	1704	CG	GLU	A	241	16.898	-16.644	13.194	1.00	0.00	A	C
ATOM	1705	CD	GLU	A	241	17.016	-17.024	14.662	1.00	0.00	A	C
ATOM	1706	OE1	GLU	A	241	18.113	-16.809	15.244	1.00	0.00	A	O
ATOM	1707	OE2	GLU	A	241	16.012	-17.538	15.219	1.00	0.00	A	O
ATOM	1708	C	GLU	A	241	18.810	-18.146	10.231	1.00	0.00	A	C
ATOM	1709	O	GLU	A	241	19.876	-17.588	9.979	1.00	0.00	A	O
ATOM	1710	N	SER	A	242	18.586	-19.443	9.956	1.00	0.00	A	N
ATOM	1711	CA	SER	A	242	19.587	-20.284	9.365	1.00	0.00	A	C
ATOM	1712	CB	SER	A	242	19.166	-21.763	9.324	1.00	0.00	A	C
ATOM	1713	OG	SER	A	242	18.987	-22.260	10.642	1.00	0.00	A	O
ATOM	1714	C	SER	A	242	19.875	-19.880	7.952	1.00	0.00	A	C
ATOM	1715	O	SER	A	242	21.045	-19.816	7.568	1.00	0.00	A	O
ATOM	1716	N	ASP	A	243	18.807	-19.616	7.161	1.00	0.00	A	N
ATOM	1717	CA	ASP	A	243	18.887	-19.270	5.763	1.00	0.00	A	C
ATOM	1718	CB	ASP	A	243	17.500	-19.098	5.114	1.00	0.00	A	C
ATOM	1719	CG	ASP	A	243	17.637	-19.151	3.593	1.00	0.00	A	C
ATOM	1720	OD1	ASP	A	243	18.771	-19.371	3.087	1.00	0.00	A	O
ATOM	1721	OD2	ASP	A	243	16.590	-18.976	2.912	1.00	0.00	A	O

463/514

Figure 7

ATOM	1722	C	ASP	A	243	19.614	-17.967	5.657	1.00	0.00	A	C
ATOM	1723	O	ASP	A	243	20.429	-17.771	4.755	1.00	0.00	A	O
ATOM	1724	N	ILE	A	244	19.334	-17.061	6.611	1.00	0.00	A	N
ATOM	1725	CA	ILE	A	244	19.960	-15.776	6.667	1.00	0.00	A	C
ATOM	1726	CB	ILE	A	244	19.339	-14.880	7.710	1.00	0.00	A	C
ATOM	1727	CG2	ILE	A	244	20.200	-13.617	7.876	1.00	0.00	A	C
ATOM	1728	CG1	ILE	A	244	17.885	-14.556	7.329	1.00	0.00	A	C
ATOM	1729	CD1	ILE	A	244	17.090	-13.903	8.458	1.00	0.00	A	C
ATOM	1730	C	ILE	A	244	21.417	-15.935	6.965	1.00	0.00	A	C
ATOM	1731	O	ILE	A	244	22.220	-15.275	6.317	1.00	0.00	A	O
ATOM	1732	N	LEU	A	245	21.787	-16.825	7.913	1.00	0.00	A	N
ATOM	1733	CA	LEU	A	245	23.143	-17.040	8.368	1.00	0.00	A	C
ATOM	1734	CB	LEU	A	245	23.208	-18.043	9.550	1.00	0.00	A	C
ATOM	1735	CG	LEU	A	245	24.563	-18.213	10.292	1.00	0.00	A	C
ATOM	1736	CD2	LEU	A	245	25.159	-16.838	10.631	1.00	0.00	A	C
ATOM	1737	CD1	LEU	A	245	25.579	-19.139	9.591	1.00	0.00	A	C
ATOM	1738	C	LEU	A	245	23.983	-17.555	7.242	1.00	0.00	A	C
ATOM	1739	O	LEU	A	245	25.157	-17.191	7.141	1.00	0.00	A	O
ATOM	1740	N	GLU	A	246	23.399	-18.426	6.396	1.00	0.00	A	N
ATOM	1741	CA	GLU	A	246	24.080	-18.985	5.262	1.00	0.00	A	C
ATOM	1742	CB	GLU	A	246	23.229	-20.031	4.525	1.00	0.00	A	C
ATOM	1743	CG	GLU	A	246	23.942	-20.654	3.326	1.00	0.00	A	C
ATOM	1744	CD	GLU	A	246	23.049	-21.756	2.778	1.00	0.00	A	C
ATOM	1745	OE1	GLU	A	246	21.972	-21.996	3.384	1.00	0.00	A	O
ATOM	1746	OE2	GLU	A	246	23.432	-22.373	1.748	1.00	0.00	A	O
ATOM	1747	C	GLU	A	246	24.369	-17.865	4.316	1.00	0.00	A	C
ATOM	1748	O	GLU	A	246	25.433	-17.815	3.698	1.00	0.00	A	O
ATOM	1749	N	LYS	A	247	23.415	-16.924	4.210	1.00	0.00	A	N
ATOM	1750	CA	LYS	A	247	23.576	-15.786	3.358	1.00	0.00	A	C
ATOM	1751	CB	LYS	A	247	22.289	-14.967	3.193	1.00	0.00	A	C
ATOM	1752	CG	LYS	A	247	21.380	-15.532	2.102	1.00	0.00	A	C
ATOM	1753	CD	LYS	A	247	22.000	-15.425	0.706	1.00	0.00	A	C
ATOM	1754	CE	LYS	A	247	21.130	-16.003	-0.409	1.00	0.00	A	C
ATOM	1755	NZ	LYS	A	247	21.327	-17.467	-0.484	1.00	0.00	A	N
ATOM	1756	C	LYS	A	247	24.667	-14.869	3.830	1.00	0.00	A	C
ATOM	1757	O	LYS	A	247	25.454	-14.409	3.008	1.00	0.00	A	O
ATOM	1758	N	VAL	A	248	24.750	-14.587	5.151	1.00	0.00	A	N
ATOM	1759	CA	VAL	A	248	25.703	-13.660	5.693	1.00	0.00	A	C
ATOM	1760	CB	VAL	A	248	25.473	-13.254	7.133	1.00	0.00	A	C
ATOM	1761	CG1	VAL	A	248	24.039	-12.716	7.244	1.00	0.00	A	C
ATOM	1762	CG2	VAL	A	248	25.818	-14.383	8.116	1.00	0.00	A	C
ATOM	1763	C	VAL	A	248	27.075	-14.230	5.559	1.00	0.00	A	C
ATOM	1764	O	VAL	A	248	28.040	-13.479	5.478	1.00	0.00	A	O
ATOM	1765	N	LYS	A	249	27.189	-15.571	5.567	1.00	0.00	A	N
ATOM	1766	CA	LYS	A	249	28.464	-16.205	5.448	1.00	0.00	A	C
ATOM	1767	CB	LYS	A	249	28.398	-17.705	5.773	1.00	0.00	A	C
ATOM	1768	CG	LYS	A	249	29.774	-18.347	5.938	1.00	0.00	A	C
ATOM	1769	CD	LYS	A	249	29.750	-19.616	6.793	1.00	0.00	A	C
ATOM	1770	CE	LYS	A	249	28.345	-20.176	7.025	1.00	0.00	A	C
ATOM	1771	NZ	LYS	A	249	28.395	-21.243	8.051	1.00	0.00	A	N
ATOM	1772	C	LYS	A	249	29.015	-15.997	4.073	1.00	0.00	A	C
ATOM	1773	O	LYS	A	249	30.208	-15.733	3.925	1.00	0.00	A	O
ATOM	1774	N	GLU	A	250	28.139	-16.093	3.047	1.00	0.00	A	N
ATOM	1775	CA	GLU	A	250	28.494	-15.918	1.660	1.00	0.00	A	C
ATOM	1776	CB	GLU	A	250	27.309	-16.191	0.720	1.00	0.00	A	C
ATOM	1777	CG	GLU	A	250	26.832	-17.645	0.783	1.00	0.00	A	C
ATOM	1778	CD	GLU	A	250	25.660	-17.826	-0.172	1.00	0.00	A	C
ATOM	1779	OE1	GLU	A	250	25.370	-16.875	-0.945	1.00	0.00	A	O
ATOM	1780	OE2	GLU	A	250	25.040	-18.923	-0.141	1.00	0.00	A	O
ATOM	1781	C	GLU	A	250	28.923	-14.496	1.480	1.00	0.00	A	C
ATOM	1782	O	GLU	A	250	29.836	-14.201	0.709	1.00	0.00	A	O
ATOM	1783	N	HIS	A	251	28.256	-13.586	2.211	1.00	0.00	A	N
ATOM	1784	CA	HIS	A	251	28.581	-12.194	2.163	1.00	0.00	A	C
ATOM	1785	ND1	HIS	A	251	25.297	-11.758	1.726	1.00	0.00	A	N
ATOM	1786	CG	HIS	A	251	26.428	-10.989	1.875	1.00	0.00	A	C
ATOM	1787	CB	HIS	A	251	27.542	-11.278	2.835	1.00	0.00	A	C
ATOM	1788	NE2	HIS	A	251	25.163	-10.139	0.214	1.00	0.00	A	N
ATOM	1789	CD2	HIS	A	251	26.327	-9.999	0.946	1.00	0.00	A	C
ATOM	1790	CE1	HIS	A	251	24.576	-11.207	0.720	1.00	0.00	A	C
ATOM	1791	C	HIS	A	251	29.923	-11.936	2.747	1.00	0.00	A	C
ATOM	1792	O	HIS	A	251	30.652	-11.125	2.186	1.00	0.00	A	O
ATOM	1793	N	GLN	A	252	30.287	-12.629	3.852	1.00	0.00	A	N
ATOM	1794	CA	GLN	A	252	31.535	-12.472	4.556	1.00	0.00	A	C
ATOM	1795	CB	GLN	A	252	31.638	-13.368	5.807	1.00	0.00	A	C
ATOM	1796	CG	GLN	A	252	30.672	-12.964	6.922	1.00	0.00	A	C

464/514

Figure 7

ATOM	1797	CD	GLN	A	252	30.858	-13.918	8.096	1.00	0.00	A	C
ATOM	1798	OE1	GLN	A	252	30.772	-13.513	9.252	1.00	0.00	A	O
ATOM	1799	NE2	GLN	A	252	31.104	-15.222	7.789	1.00	0.00	A	N
ATOM	1800	C	GLN	A	252	32.652	-12.851	3.630	1.00	0.00	A	C
ATOM	1801	O	GLN	A	252	33.737	-12.275	3.680	1.00	0.00	A	O
ATOM	1802	N	GLU	A	253	32.402	-13.859	2.775	1.00	0.00	A	N
ATOM	1803	CA	GLU	A	253	33.376	-14.277	1.813	1.00	0.00	A	C
ATOM	1804	CB	GLU	A	253	32.939	-15.578	1.105	1.00	0.00	A	C
ATOM	1805	CG	GLU	A	253	33.840	-16.048	-0.039	1.00	0.00	A	C
ATOM	1806	CD	GLU	A	253	33.166	-15.666	-1.354	1.00	0.00	A	C
ATOM	1807	OE1	GLU	A	253	32.005	-16.110	-1.571	1.00	0.00	A	O
ATOM	1808	OE2	GLU	A	253	33.796	-14.922	-2.152	1.00	0.00	A	O
ATOM	1809	C	GLU	A	253	33.614	-13.215	0.776	1.00	0.00	A	C
ATOM	1810	O	GLU	A	253	34.738	-12.740	0.623	1.00	0.00	A	O
ATOM	1811	N	SER	A	254	32.563	-12.763	0.061	1.00	0.00	A	N
ATOM	1812	CA	SER	A	254	32.833	-11.825	-0.996	1.00	0.00	A	C
ATOM	1813	CB	SER	A	254	32.068	-12.168	-2.290	1.00	0.00	A	C
ATOM	1814	OG	SER	A	254	30.672	-12.245	-2.036	1.00	0.00	A	O
ATOM	1815	C	SER	A	254	32.430	-10.459	-0.557	1.00	0.00	A	C
ATOM	1816	O	SER	A	254	31.771	-9.711	-1.282	1.00	0.00	A	O
ATOM	1817	N	MET	A	255	32.890	-10.085	0.644	1.00	0.00	A	N
ATOM	1818	CA	MET	A	255	32.576	-8.811	1.201	1.00	0.00	A	C
ATOM	1819	CB	MET	A	255	32.584	-8.854	2.744	1.00	0.00	A	C
ATOM	1820	CG	MET	A	255	31.996	-7.639	3.457	1.00	0.00	A	C
ATOM	1821	SD	MET	A	255	33.184	-6.300	3.728	1.00	0.00	A	S
ATOM	1822	CE	MET	A	255	34.048	-7.146	5.085	1.00	0.00	A	C
ATOM	1823	C	MET	A	255	33.641	-7.891	0.740	1.00	0.00	A	C
ATOM	1824	O	MET	A	255	34.800	-8.284	0.606	1.00	0.00	A	O
ATOM	1825	N	ASP	A	256	33.260	-6.637	0.459	1.00	0.00	A	N
ATOM	1826	CA	ASP	A	256	34.230	-5.677	0.051	1.00	0.00	A	C
ATOM	1827	CB	ASP	A	256	34.087	-5.305	-1.434	1.00	0.00	A	C
ATOM	1828	CG	ASP	A	256	35.305	-4.536	-1.941	1.00	0.00	A	C
ATOM	1829	OD1	ASP	A	256	36.246	-4.255	-1.154	1.00	0.00	A	O
ATOM	1830	OD2	ASP	A	256	35.300	-4.234	-3.163	1.00	0.00	A	O
ATOM	1831	C	ASP	A	256	33.979	-4.453	0.867	1.00	0.00	A	C
ATOM	1832	O	ASP	A	256	32.969	-3.770	0.715	1.00	0.00	A	O
ATOM	1833	N	ILE	A	257	34.951	-4.129	1.739	1.00	0.00	A	N
ATOM	1834	CA	ILE	A	257	34.957	-2.958	2.563	1.00	0.00	A	C
ATOM	1835	CB	ILE	A	257	36.099	-3.002	3.551	1.00	0.00	A	C
ATOM	1836	CG2	ILE	A	257	36.075	-1.751	4.447	1.00	0.00	A	C
ATOM	1837	CG1	ILE	A	257	36.018	-4.304	4.365	1.00	0.00	A	C
ATOM	1838	CD1	ILE	A	257	37.292	-4.607	5.151	1.00	0.00	A	C
ATOM	1839	C	ILE	A	257	35.181	-1.833	1.589	1.00	0.00	A	C
ATOM	1840	O	ILE	A	257	35.743	-2.044	0.518	1.00	0.00	A	O
ATOM	1841	N	ASN	A	258	34.658	-0.622	1.897	1.00	0.00	A	N
ATOM	1842	CA	ASN	A	258	34.671	0.613	1.135	1.00	0.00	A	C
ATOM	1843	CB	ASN	A	258	35.988	0.952	0.396	1.00	0.00	A	C
ATOM	1844	CG	ASN	A	258	37.144	0.779	1.366	1.00	0.00	A	C
ATOM	1845	OD1	ASN	A	258	37.270	1.472	2.374	1.00	0.00	A	O
ATOM	1846	ND2	ASN	A	258	38.013	-0.220	1.050	1.00	0.00	A	N
ATOM	1847	C	ASN	A	258	33.599	0.575	0.086	1.00	0.00	A	C
ATOM	1848	O	ASN	A	258	33.317	1.596	-0.540	1.00	0.00	A	O
ATOM	1849	N	ASN	A	259	32.947	-0.579	-0.135	1.00	0.00	A	N
ATOM	1850	CA	ASN	A	259	31.772	-0.531	-0.941	1.00	0.00	A	C
ATOM	1851	CB	ASN	A	259	32.045	-0.694	-2.449	1.00	0.00	A	C
ATOM	1852	CG	ASN	A	259	32.997	-1.847	-2.712	1.00	0.00	A	C
ATOM	1853	OD1	ASN	A	259	32.621	-3.012	-2.810	1.00	0.00	A	O
ATOM	1854	ND2	ASN	A	259	34.294	-1.477	-2.890	1.00	0.00	A	N
ATOM	1855	C	ASN	A	259	30.697	-1.472	-0.445	1.00	0.00	A	C
ATOM	1856	O	ASN	A	259	30.480	-2.515	-1.066	1.00	0.00	A	O
ATOM	1857	N	PRO	A	260	29.959	-1.184	0.623	1.00	0.00	A	N
ATOM	1858	CA	PRO	A	260	28.883	-2.072	0.973	1.00	0.00	A	C
ATOM	1859	CB	PRO	A	260	30.446	-0.486	1.816	1.00	0.00	A	C
ATOM	1860	CG	PRO	A	260	28.512	-1.774	2.426	1.00	0.00	A	C
ATOM	1861	CD	PRO	A	260	29.784	-1.165	3.020	1.00	0.00	A	C
ATOM	1862	C	PRO	A	260	27.718	-1.859	0.054	1.00	0.00	A	C
ATOM	1863	O	PRO	A	260	27.394	-0.709	-0.237	1.00	0.00	A	O
ATOM	1864	N	ARG	A	261	27.151	-2.962	-0.468	1.00	0.00	A	N
ATOM	1865	CA	ARG	A	261	25.995	-3.047	-1.325	1.00	0.00	A	C
ATOM	1866	CB	ARG	A	261	26.019	-4.323	-2.193	1.00	0.00	A	C
ATOM	1867	CG	ARG	A	261	27.246	-4.521	-3.098	1.00	0.00	A	C
ATOM	1868	CD	ARG	A	261	28.498	-5.043	-2.378	1.00	0.00	A	C
ATOM	1869	NE	ARG	A	261	29.513	-5.393	-3.410	1.00	0.00	A	N
ATOM	1870	CZ	ARG	A	261	29.709	-6.694	-3.768	1.00	0.00	A	C
ATOM	1871	NH1	ARG	A	261	28.997	-7.690	-3.160	1.00	0.00	A	N

Figure 7

ATOM	1872	NH2	ARG	A	261	30.631	-7.001	-4.728	1.00	0.00	A	N
ATOM	1873	C	ARG	A	261	24.686	-3.110	-0.581	1.00	0.00	A	C
ATOM	1874	O	ARG	A	261	23.660	-2.624	-1.056	1.00	0.00	A	O
ATOM	1875	N	ASP	A	262	24.661	-3.788	0.582	1.00	0.00	A	N
ATOM	1876	CA	ASP	A	262	23.402	-4.081	1.215	1.00	0.00	A	C
ATOM	1877	CB	ASP	A	262	22.879	-5.472	0.793	1.00	0.00	A	C
ATOM	1878	CG	ASP	A	262	23.960	-6.565	0.936	1.00	0.00	A	C
ATOM	1879	OD1	ASP	A	262	24.944	-6.449	1.710	1.00	0.00	A	O
ATOM	1880	OD2	ASP	A	262	23.800	-7.580	0.222	1.00	0.00	A	O
ATOM	1881	C	ASP	A	262	23.495	-4.000	2.709	1.00	0.00	A	C
ATOM	1882	O	ASP	A	262	24.523	-3.611	3.261	1.00	0.00	A	O
ATOM	1883	N	PHE	A	263	22.394	-4.407	3.377	1.00	0.00	A	N
ATOM	1884	CA	PHE	A	263	22.213	-4.351	4.802	1.00	0.00	A	C
ATOM	1885	CB	PHE	A	263	20.805	-4.803	5.224	1.00	0.00	A	C
ATOM	1886	CG	PHE	A	263	20.566	-4.259	6.589	1.00	0.00	A	C
ATOM	1887	CD1	PHE	A	263	20.229	-2.933	6.741	1.00	0.00	A	C
ATOM	1888	CD2	PHE	A	263	20.666	-5.050	7.711	1.00	0.00	A	C
ATOM	1889	CE1	PHE	A	263	19.996	-2.403	7.991	1.00	0.00	A	C
ATOM	1890	CE2	PHE	A	263	20.433	-4.521	8.964	1.00	0.00	A	C
ATOM	1891	CZ	PHE	A	263	20.100	-3.193	9.109	1.00	0.00	A	C
ATOM	1892	C	PHE	A	263	23.229	-5.218	5.486	1.00	0.00	A	C
ATOM	1893	O	PHE	A	263	23.788	-4.812	6.506	1.00	0.00	A	O
ATOM	1894	N	ILE	A	264	23.486	-6.420	4.916	1.00	0.00	A	N
ATOM	1895	CA	ILE	A	264	24.424	-7.385	5.434	1.00	0.00	A	C
ATOM	1896	CB	ILE	A	264	24.550	-8.607	4.553	1.00	0.00	A	C
ATOM	1897	CG2	ILE	A	264	25.696	-9.477	5.103	1.00	0.00	A	C
ATOM	1898	CG1	ILE	A	264	23.222	-9.371	4.424	1.00	0.00	A	C
ATOM	1899	CD1	ILE	A	264	22.771	-10.097	5.684	1.00	0.00	A	C
ATOM	1900	C	ILE	A	264	25.795	-6.777	5.428	1.00	0.00	A	C
ATOM	1901	O	ILE	A	264	26.490	-6.858	6.432	1.00	0.00	A	O
ATOM	1902	N	ASP	A	265	26.189	-6.131	4.310	1.00	0.00	A	N
ATOM	1903	CA	ASP	A	265	27.499	-5.561	4.155	1.00	0.00	A	C
ATOM	1904	CB	ASP	A	265	27.778	-5.045	2.737	1.00	0.00	A	C
ATOM	1905	CG	ASP	A	265	28.076	-6.253	1.864	1.00	0.00	A	C
ATOM	1906	OD1	ASP	A	265	28.346	-7.342	2.433	1.00	0.00	A	O
ATOM	1907	OD2	ASP	A	265	28.048	-6.097	0.615	1.00	0.00	A	O
ATOM	1908	C	ASP	A	265	27.718	-4.437	5.115	1.00	0.00	A	C
ATOM	1909	O	ASP	A	265	28.795	-4.335	5.696	1.00	0.00	A	O
ATOM	1910	N	CYS	A	266	26.691	-3.588	5.315	1.00	0.00	A	N
ATOM	1911	CA	CYS	A	266	26.775	-2.461	6.198	1.00	0.00	A	C
ATOM	1912	CB	CYS	A	266	25.534	-1.559	6.076	1.00	0.00	A	C
ATOM	1913	SG	CYS	A	266	25.424	-0.708	4.479	1.00	0.00	A	S
ATOM	1914	C	CYS	A	266	26.936	-2.902	7.632	1.00	0.00	A	C
ATOM	1915	O	CYS	A	266	27.729	-2.332	8.386	1.00	0.00	A	O
ATOM	1916	N	PHE	A	267	26.176	-3.942	8.029	1.00	0.00	A	N
ATOM	1917	CA	PHE	A	267	26.194	-4.440	9.376	1.00	0.00	A	C
ATOM	1918	CB	PHE	A	267	25.083	-5.474	9.622	1.00	0.00	A	C
ATOM	1919	CG	PHE	A	267	24.855	-5.586	11.094	1.00	0.00	A	C
ATOM	1920	CD1	PHE	A	267	23.956	-4.737	11.699	1.00	0.00	A	C
ATOM	1921	CD2	PHE	A	267	25.527	-6.512	11.859	1.00	0.00	A	C
ATOM	1922	CE1	PHE	A	267	23.717	-4.808	13.051	1.00	0.00	A	C
ATOM	1923	CE2	PHE	A	267	25.293	-6.587	13.212	1.00	0.00	A	C
ATOM	1924	CZ	PHE	A	267	24.388	-5.739	13.810	1.00	0.00	A	C
ATOM	1925	C	PHE	A	267	27.524	-5.092	9.633	1.00	0.00	A	C
ATOM	1926	O	PHE	A	267	28.096	-4.958	10.713	1.00	0.00	A	O
ATOM	1927	N	LEU	A	268	28.036	-5.815	8.617	1.00	0.00	A	N
ATOM	1928	CA	LEU	A	268	29.253	-6.574	8.687	1.00	0.00	A	C
ATOM	1929	CB	LEU	A	268	29.478	-7.397	7.407	1.00	0.00	A	C
ATOM	1930	CG	LEU	A	268	30.556	-8.480	7.549	1.00	0.00	A	C
ATOM	1931	CD2	LEU	A	268	30.835	-9.179	6.205	1.00	0.00	A	C
ATOM	1932	CD1	LEU	A	268	30.154	-9.475	8.649	1.00	0.00	A	C
ATOM	1933	C	LEU	A	268	30.417	-5.639	8.887	1.00	0.00	A	C
ATOM	1934	O	LEU	A	268	31.259	-5.861	9.755	1.00	0.00	A	O
ATOM	1935	N	ILE	A	269	30.452	-4.538	8.116	1.00	0.00	A	N
ATOM	1936	CA	ILE	A	269	31.470	-3.522	8.162	1.00	0.00	A	C
ATOM	1937	CB	ILE	A	269	31.238	-2.504	7.066	1.00	0.00	A	C
ATOM	1938	CG2	ILE	A	269	32.018	-1.206	7.324	1.00	0.00	A	C
ATOM	1939	CG1	ILE	A	269	31.598	-3.139	5.719	1.00	0.00	A	C
ATOM	1940	CD1	ILE	A	269	33.082	-3.473	5.629	1.00	0.00	A	C
ATOM	1941	C	ILE	A	269	31.457	-2.847	9.490	1.00	0.00	A	C
ATOM	1942	O	ILE	A	269	32.518	-2.509	10.019	1.00	0.00	A	O
ATOM	1943	N	LYS	A	270	30.234	-2.649	10.027	1.00	0.00	A	N
ATOM	1944	CA	LYS	A	270	29.988	-1.981	11.273	1.00	0.00	A	C
ATOM	1945	CB	LYS	A	270	28.490	-1.862	11.607	1.00	0.00	A	C
ATOM	1946	CG	LYS	A	270	28.123	-0.521	12.248	1.00	0.00	A	C

466/514

Figure 7

ATOM	1947	CD	LYS	A	270	29.109	-0.028	13.308	1.00	0.00	A	C
ATOM	1948	CE	LYS	A	270	29.044	1.484	13.528	1.00	0.00	A	C
ATOM	1949	NZ	LYS	A	270	30.403	2.002	13.799	1.00	0.00	A	N
ATOM	1950	C	LYS	A	270	30.626	-2.807	12.353	1.00	0.00	A	C
ATOM	1951	O	LYS	A	270	31.148	-2.270	13.324	1.00	0.00	A	O
ATOM	1952	N	MET	A	271	30.594	-4.146	12.218	1.00	0.00	A	N
ATOM	1953	CA	MET	A	271	31.195	-4.990	13.213	1.00	0.00	A	C
ATOM	1954	CB	MET	A	271	30.607	-6.413	13.314	1.00	0.00	A	C
ATOM	1955	CG	MET	A	271	31.095	-7.459	12.324	1.00	0.00	A	C
ATOM	1956	SD	MET	A	271	30.292	-9.074	12.530	1.00	0.00	A	S
ATOM	1957	CE	MET	A	271	31.550	-9.965	11.575	1.00	0.00	A	C
ATOM	1958	C	MET	A	271	32.696	-5.007	13.163	1.00	0.00	A	C
ATOM	1959	O	MET	A	271	33.291	-5.355	14.178	1.00	0.00	A	O
ATOM	1960	N	GLU	A	272	33.347	-4.695	12.009	1.00	0.00	A	N
ATOM	1961	CA	GLU	A	272	34.794	-4.643	11.926	1.00	0.00	A	C
ATOM	1962	CB	GLU	A	272	35.346	-4.382	10.513	1.00	0.00	A	C
ATOM	1963	CG	GLU	A	272	35.523	-5.658	9.697	1.00	0.00	A	C
ATOM	1964	CD	GLU	A	272	36.533	-6.502	10.461	1.00	0.00	A	C
ATOM	1965	OE1	GLU	A	272	37.761	-6.322	10.249	1.00	0.00	A	O
ATOM	1966	OE2	GLU	A	272	36.069	-7.334	11.286	1.00	0.00	A	O
ATOM	1967	C	GLU	A	272	35.298	-3.561	12.815	1.00	0.00	A	C
ATOM	1968	O	GLU	A	272	36.255	-3.737	13.569	1.00	0.00	A	O
ATOM	1969	N	LYS	A	273	34.600	-2.415	12.789	1.00	0.00	A	N
ATOM	1970	CA	LYS	A	273	34.877	-1.345	13.694	1.00	0.00	A	C
ATOM	1971	CB	LYS	A	273	34.288	-0.012	13.219	1.00	0.00	A	C
ATOM	1972	CG	LYS	A	273	34.918	0.443	11.902	1.00	0.00	A	C
ATOM	1973	CD	LYS	A	273	34.090	1.483	11.153	1.00	0.00	A	C
ATOM	1974	CE	LYS	A	273	34.641	1.810	9.765	1.00	0.00	A	C
ATOM	1975	NZ	LYS	A	273	33.617	2.524	8.971	1.00	0.00	A	N
ATOM	1976	C	LYS	A	273	34.191	-1.765	14.949	1.00	0.00	A	C
ATOM	1977	O	LYS	A	273	33.368	-2.659	14.949	1.00	0.00	A	O
ATOM	1978	N	GLU	A	274	34.563	-1.238	16.111	1.00	0.00	A	N
ATOM	1979	CA	GLU	A	274	33.960	-1.596	17.371	1.00	0.00	A	C
ATOM	1980	CB	GLU	A	274	32.442	-1.324	17.482	1.00	0.00	A	C
ATOM	1981	CG	GLU	A	274	32.119	0.153	17.265	1.00	0.00	A	C
ATOM	1982	CD	GLU	A	274	30.615	0.354	17.373	1.00	0.00	A	C
ATOM	1983	OE1	GLU	A	274	29.972	-0.412	18.136	1.00	0.00	A	O
ATOM	1984	OE2	GLU	A	274	30.092	1.282	16.696	1.00	0.00	A	O
ATOM	1985	C	GLU	A	274	34.277	-3.004	17.825	1.00	0.00	A	C
ATOM	1986	O	GLU	A	274	33.984	-3.278	18.975	1.00	0.00	A	O
ATOM	1987	N	LYS	A	275	34.978	-3.879	17.053	1.00	0.00	A	N
ATOM	1988	CA	LYS	A	275	35.352	-5.243	17.390	1.00	0.00	A	C
ATOM	1989	CB	LYS	A	275	36.315	-5.945	16.421	1.00	0.00	A	C
ATOM	1990	CG	LYS	A	275	35.701	-6.769	15.313	1.00	0.00	A	C
ATOM	1991	CD	LYS	A	275	36.739	-7.419	14.394	1.00	0.00	A	C
ATOM	1992	CE	LYS	A	275	37.683	-6.427	13.707	1.00	0.00	A	C
ATOM	1993	NZ	LYS	A	275	38.954	-6.307	14.457	1.00	0.00	A	N
ATOM	1994	C	LYS	A	275	36.228	-5.238	18.583	1.00	0.00	A	C
ATOM	1995	O	LYS	A	275	36.205	-6.182	19.374	1.00	0.00	A	O
ATOM	1996	N	GLN	A	276	37.052	-4.175	18.664	1.00	0.00	A	N
ATOM	1997	CA	GLN	A	276	37.980	-3.963	19.728	1.00	0.00	A	C
ATOM	1998	CB	GLN	A	276	38.783	-2.665	19.549	1.00	0.00	A	C
ATOM	1999	CG	GLN	A	276	39.726	-2.697	18.345	1.00	0.00	A	C
ATOM	2000	CD	GLN	A	276	40.421	-1.345	18.245	1.00	0.00	A	C
ATOM	2001	OE1	GLN	A	276	40.983	-0.840	19.214	1.00	0.00	A	O
ATOM	2002	NE2	GLN	A	276	40.379	-0.732	17.031	1.00	0.00	A	N
ATOM	2003	C	GLN	A	276	37.184	-3.832	20.985	1.00	0.00	A	C
ATOM	2004	O	GLN	A	276	37.473	-4.494	21.979	1.00	0.00	A	O
ATOM	2005	N	ASN	A	277	36.108	-3.028	20.952	1.00	0.00	A	N
ATOM	2006	CA	ASN	A	277	35.319	-2.976	22.146	1.00	0.00	A	C
ATOM	2007	CB	ASN	A	277	34.549	-1.661	22.331	1.00	0.00	A	C
ATOM	2008	CG	ASN	A	277	34.044	-1.682	23.759	1.00	0.00	A	C
ATOM	2009	OD1	ASN	A	277	32.925	-2.123	24.012	1.00	0.00	A	O
ATOM	2010	ND2	ASN	A	277	34.902	-1.234	24.717	1.00	0.00	A	N
ATOM	2011	C	ASN	A	277	34.329	-4.100	22.049	1.00	0.00	A	C
ATOM	2012	O	ASN	A	277	33.208	-3.942	21.567	1.00	0.00	A	O
ATOM	2013	N	GLN	A	278	34.709	-5.268	22.589	1.00	0.00	A	N
ATOM	2014	CA	GLN	A	278	34.004	-6.513	22.459	1.00	0.00	A	C
ATOM	2015	CB	GLN	A	278	34.781	-7.753	22.913	1.00	0.00	A	C
ATOM	2016	CG	GLN	A	278	35.691	-8.277	21.802	1.00	0.00	A	C
ATOM	2017	CD	GLN	A	278	34.825	-9.010	20.772	1.00	0.00	A	C
ATOM	2018	OE1	GLN	A	278	34.745	-10.236	20.817	1.00	0.00	A	O
ATOM	2019	NE2	GLN	A	278	34.163	-8.275	19.835	1.00	0.00	A	N
ATOM	2020	C	GLN	A	278	32.631	-6.563	23.031	1.00	0.00	A	C
ATOM	2021	O	GLN	A	278	31.898	-7.493	22.699	1.00	0.00	A	O

467/514

Figure 7

ATOM	2022	N	GLN	A	279	32.279	-5.616	23.922	1.00	0.00	A	N
ATOM	2023	CA	GLN	A	279	31.005	-5.500	24.589	1.00	0.00	A	C
ATOM	2024	CB	GLN	A	279	30.951	-4.174	25.368	1.00	0.00	A	C
ATOM	2025	CG	GLN	A	279	29.839	-4.059	26.406	1.00	0.00	A	C
ATOM	2026	CD	GLN	A	279	30.495	-4.195	27.774	1.00	0.00	A	C
ATOM	2027	OE1	GLN	A	279	30.210	-5.122	28.529	1.00	0.00	A	O
ATOM	2028	NE2	GLN	A	279	31.398	-3.234	28.109	1.00	0.00	A	N
ATOM	2029	C	GLN	A	279	29.890	-5.416	23.553	1.00	0.00	A	C
ATOM	2030	O	GLN	A	279	28.840	-6.028	23.724	1.00	0.00	A	O
ATOM	2031	N	SER	A	280	30.163	-4.726	22.427	1.00	0.00	A	N
ATOM	2032	CA	SER	A	280	29.401	-4.301	21.264	1.00	0.00	A	C
ATOM	2033	CB	SER	A	280	30.290	-4.300	20.007	1.00	0.00	A	C
ATOM	2034	OG	SER	A	280	29.557	-3.876	18.868	1.00	0.00	A	O
ATOM	2035	C	SER	A	280	28.121	-5.059	20.939	1.00	0.00	A	C
ATOM	2036	O	SER	A	280	28.020	-6.282	21.022	1.00	0.00	A	O
ATOM	2037	N	GLU	A	281	27.080	-4.261	20.580	1.00	0.00	A	N
ATOM	2038	CA	GLU	A	281	25.738	-4.623	20.178	1.00	0.00	A	C
ATOM	2039	CB	GLU	A	281	24.728	-3.460	20.189	1.00	0.00	A	C
ATOM	2040	CG	GLU	A	281	23.856	-3.331	21.449	1.00	0.00	A	C
ATOM	2041	CD	GLU	A	281	24.638	-3.596	22.727	1.00	0.00	A	C
ATOM	2042	OE1	GLU	A	281	24.765	-4.793	23.093	1.00	0.00	A	O
ATOM	2043	OE2	GLU	A	281	25.091	-2.609	23.371	1.00	0.00	A	O
ATOM	2044	C	GLU	A	281	25.643	-5.266	18.824	1.00	0.00	A	C
ATOM	2045	O	GLU	A	281	24.714	-6.029	18.579	1.00	0.00	A	O
ATOM	2046	N	PHE	A	282	26.544	-4.939	17.882	1.00	0.00	A	N
ATOM	2047	CA	PHE	A	282	26.475	-5.489	16.555	1.00	0.00	A	C
ATOM	2048	CB	PHE	A	282	27.299	-4.677	15.527	1.00	0.00	A	C
ATOM	2049	CG	PHE	A	282	26.875	-3.244	15.528	1.00	0.00	A	C
ATOM	2050	CD1	PHE	A	282	27.482	-2.344	16.374	1.00	0.00	A	C
ATOM	2051	CD2	PHE	A	282	25.887	-2.797	14.680	1.00	0.00	A	C
ATOM	2052	CE1	PHE	A	282	27.105	-1.021	16.384	1.00	0.00	A	C
ATOM	2053	CE2	PHE	A	282	25.503	-1.478	14.683	1.00	0.00	A	C
ATOM	2054	CZ	PHE	A	282	26.113	-0.589	15.536	1.00	0.00	A	C
ATOM	2055	C	PHE	A	282	27.137	-6.836	16.602	1.00	0.00	A	C
ATOM	2056	O	PHE	A	282	28.320	-6.933	16.930	1.00	0.00	A	O
ATOM	2057	N	THR	A	283	26.388	-7.918	16.282	1.00	0.00	A	N
ATOM	2058	CA	THR	A	283	26.979	-9.227	16.335	1.00	0.00	A	C
ATOM	2059	CB	THR	A	283	26.641	-9.940	17.616	1.00	0.00	A	C
ATOM	2060	OG1	THR	A	283	26.736	-9.052	18.713	1.00	0.00	A	O
ATOM	2061	CG2	THR	A	283	27.696	-11.025	17.864	1.00	0.00	A	C
ATOM	2062	C	THR	A	283	26.265	-9.988	15.257	1.00	0.00	A	C
ATOM	2063	O	THR	A	283	25.255	-9.509	14.754	1.00	0.00	A	O
ATOM	2064	N	ILE	A	284	26.759	-11.189	14.887	1.00	0.00	A	N
ATOM	2065	CA	ILE	A	284	26.171	-12.043	13.889	1.00	0.00	A	C
ATOM	2066	CB	ILE	A	284	27.042	-13.230	13.576	1.00	0.00	A	C
ATOM	2067	CG2	ILE	A	284	26.306	-14.222	12.659	1.00	0.00	A	C
ATOM	2068	CG1	ILE	A	284	28.343	-12.704	12.951	1.00	0.00	A	C
ATOM	2069	CD1	ILE	A	284	29.371	-13.790	12.659	1.00	0.00	A	C
ATOM	2070	C	ILE	A	284	24.811	-12.471	14.360	1.00	0.00	A	C
ATOM	2071	O	ILE	A	284	23.892	-12.615	13.551	1.00	0.00	A	O
ATOM	2072	N	GLU	A	285	24.669	-12.671	15.692	1.00	0.00	A	N
ATOM	2073	CA	GLU	A	285	23.439	-13.054	16.335	1.00	0.00	A	C
ATOM	2074	CB	GLU	A	285	23.609	-13.144	17.865	1.00	0.00	A	C
ATOM	2075	CG	GLU	A	285	22.292	-13.184	18.651	1.00	0.00	A	C
ATOM	2076	CD	GLU	A	285	21.844	-14.627	18.849	1.00	0.00	A	C
ATOM	2077	OE1	GLU	A	285	22.735	-15.508	18.980	1.00	0.00	A	O
ATOM	2078	OE2	GLU	A	285	20.607	-14.864	18.894	1.00	0.00	A	O
ATOM	2079	C	GLU	A	285	22.411	-11.989	16.105	1.00	0.00	A	C
ATOM	2080	O	GLU	A	285	21.313	-12.272	15.631	1.00	0.00	A	O
ATOM	2081	N	ASN	A	286	22.771	-10.726	16.383	1.00	0.00	A	N
ATOM	2082	CA	ASN	A	286	21.862	-9.630	16.242	1.00	0.00	A	C
ATOM	2083	CB	ASN	A	286	22.319	-8.367	16.987	1.00	0.00	A	C
ATOM	2084	CG	ASN	A	286	22.048	-8.698	18.454	1.00	0.00	A	C
ATOM	2085	OD1	ASN	A	286	21.388	-9.693	18.750	1.00	0.00	A	O
ATOM	2086	ND2	ASN	A	286	22.543	-7.854	19.394	1.00	0.00	A	N
ATOM	2087	C	ASN	A	286	21.563	-9.352	14.808	1.00	0.00	A	C
ATOM	2088	O	ASN	A	286	20.498	-8.824	14.511	1.00	0.00	A	O
ATOM	2089	N	LEU	A	287	22.498	-9.661	13.893	1.00	0.00	A	N
ATOM	2090	CA	LEU	A	287	22.315	-9.444	12.487	1.00	0.00	A	C
ATOM	2091	CB	LEU	A	287	23.582	-9.757	11.673	1.00	0.00	A	C
ATOM	2092	CG	LEU	A	287	23.430	-9.540	10.157	1.00	0.00	A	C
ATOM	2093	CD2	LEU	A	287	24.674	-10.037	9.401	1.00	0.00	A	C
ATOM	2094	CD1	LEU	A	287	23.081	-8.076	9.831	1.00	0.00	A	C
ATOM	2095	C	LEU	A	287	21.207	-10.324	11.997	1.00	0.00	A	C
ATOM	2096	O	LEU	A	287	20.321	-9.851	11.290	1.00	0.00	A	O

468/514

Figure 7

ATOM	2097	N	VAL	A	288	21.209	-11.609	12.408	1.00	0.00	A	N
ATOM	2098	CA	VAL	A	288	20.188	-12.521	11.967	1.00	0.00	A	C
ATOM	2099	CB	VAL	A	288	20.516	-13.979	12.184	1.00	0.00	A	C
ATOM	2100	CG1	VAL	A	288	20.393	-14.389	13.658	1.00	0.00	A	C
ATOM	2101	CG2	VAL	A	288	19.629	-14.790	11.232	1.00	0.00	A	C
ATOM	2102	C	VAL	A	288	18.864	-12.168	12.574	1.00	0.00	A	C
ATOM	2103	O	VAL	A	288	17.826	-12.359	11.938	1.00	0.00	A	O
ATOM	2104	N	ILE	A	289	18.863	-11.660	13.829	1.00	0.00	A	N
ATOM	2105	CA	ILE	A	289	17.615	-11.332	14.453	1.00	0.00	A	C
ATOM	2106	CB	ILE	A	289	17.677	-11.175	15.940	1.00	0.00	A	C
ATOM	2107	CG2	ILE	A	289	16.213	-11.215	16.406	1.00	0.00	A	C
ATOM	2108	CG1	ILE	A	289	18.421	-12.361	16.576	1.00	0.00	A	C
ATOM	2109	CD1	ILE	A	289	17.762	-13.714	16.299	1.00	0.00	A	C
ATOM	2110	C	ILE	A	289	16.996	-10.116	13.810	1.00	0.00	A	C
ATOM	2111	O	ILE	A	289	15.783	-10.072	13.612	1.00	0.00	A	O
ATOM	2112	N	THR	A	290	17.824	-9.107	13.466	1.00	0.00	A	N
ATOM	2113	CA	THR	A	290	17.397	-7.878	12.846	1.00	0.00	A	C
ATOM	2114	CB	THR	A	290	18.494	-6.841	12.724	1.00	0.00	A	C
ATOM	2115	OG1	THR	A	290	18.956	-6.470	14.015	1.00	0.00	A	O
ATOM	2116	CG2	THR	A	290	17.968	-5.585	12.000	1.00	0.00	A	C
ATOM	2117	C	THR	A	290	16.845	-8.178	11.487	1.00	0.00	A	C
ATOM	2118	O	THR	A	290	15.864	-7.567	11.060	1.00	0.00	A	O
ATOM	2119	N	ALA	A	291	17.477	-9.134	10.778	1.00	0.00	A	N
ATOM	2120	CA	ALA	A	291	17.064	-9.523	9.457	1.00	0.00	A	C
ATOM	2121	CB	ALA	A	291	18.013	-10.551	8.819	1.00	0.00	A	C
ATOM	2122	C	ALA	A	291	15.695	-10.141	9.486	1.00	0.00	A	C
ATOM	2123	O	ALA	A	291	14.864	-9.838	8.629	1.00	0.00	A	O
ATOM	2124	N	ALA	A	292	15.433	-11.013	10.482	1.00	0.00	A	N
ATOM	2125	CA	ALA	A	292	14.166	-11.686	10.618	1.00	0.00	A	C
ATOM	2126	CB	ALA	A	292	14.159	-12.730	11.745	1.00	0.00	A	C
ATOM	2127	C	ALA	A	292	13.096	-10.688	10.931	1.00	0.00	A	C
ATOM	2128	O	ALA	A	292	11.984	-10.806	10.417	1.00	0.00	A	O
ATOM	2129	N	ASP	A	293	13.423	-9.685	11.779	1.00	0.00	A	N
ATOM	2130	CA	ASP	A	293	12.504	-8.650	12.172	1.00	0.00	A	C
ATOM	2131	CB	ASP	A	293	13.090	-7.683	13.218	1.00	0.00	A	C
ATOM	2132	CG	ASP	A	293	13.118	-8.392	14.567	1.00	0.00	A	C
ATOM	2133	OD1	ASP	A	293	12.725	-9.587	14.619	1.00	0.00	A	O
ATOM	2134	OD2	ASP	A	293	13.532	-7.742	15.566	1.00	0.00	A	O
ATOM	2135	C	ASP	A	293	12.111	-7.835	10.968	1.00	0.00	A	C
ATOM	2136	O	ASP	A	293	10.944	-7.483	10.820	1.00	0.00	A	O
ATOM	2137	N	LEU	A	294	13.072	-7.530	10.072	1.00	0.00	A	N
ATOM	2138	CA	LEU	A	294	12.813	-6.773	8.878	1.00	0.00	A	C
ATOM	2139	CB	LEU	A	294	14.092	-6.420	8.102	1.00	0.00	A	C
ATOM	2140	CG	LEU	A	294	14.987	-5.407	8.838	1.00	0.00	A	C
ATOM	2141	CD2	LEU	A	294	14.193	-4.151	9.229	1.00	0.00	A	C
ATOM	2142	CD1	LEU	A	294	16.251	-5.085	8.022	1.00	0.00	A	C
ATOM	2143	C	LEU	A	294	11.922	-7.538	7.949	1.00	0.00	A	C
ATOM	2144	O	LEU	A	294	11.034	-6.945	7.344	1.00	0.00	A	O
ATOM	2145	N	LEU	A	295	12.140	-8.859	7.806	1.00	0.00	A	N
ATOM	2146	CA	LEU	A	295	11.345	-9.694	6.937	1.00	0.00	A	C
ATOM	2147	CB	LEU	A	295	11.845	-11.148	6.898	1.00	0.00	A	C
ATOM	2148	CG	LEU	A	295	13.257	-11.349	6.316	1.00	0.00	A	C
ATOM	2149	CD2	LEU	A	295	13.375	-10.741	4.912	1.00	0.00	A	C
ATOM	2150	CD1	LEU	A	295	13.655	-12.834	6.325	1.00	0.00	A	C
ATOM	2151	C	LEU	A	295	9.933	-9.762	7.448	1.00	0.00	A	C
ATOM	2152	O	LEU	A	295	8.983	-9.712	6.670	1.00	0.00	A	O
ATOM	2153	N	GLY	A	296	9.763	-9.919	8.771	1.00	0.00	A	N
ATOM	2154	CA	GLY	A	296	8.448	-10.066	9.328	1.00	0.00	A	C
ATOM	2155	C	GLY	A	296	7.658	-8.797	9.280	1.00	0.00	A	C
ATOM	2156	O	GLY	A	296	6.496	-8.788	8.882	1.00	0.00	A	O
ATOM	2157	N	ALA	A	297	8.284	-7.698	9.732	1.00	0.00	A	N
ATOM	2158	CA	ALA	A	297	7.677	-6.408	9.840	1.00	0.00	A	C
ATOM	2159	CB	ALA	A	297	8.582	-5.408	10.572	1.00	0.00	A	C
ATOM	2160	C	ALA	A	297	7.365	-5.865	8.480	1.00	0.00	A	C
ATOM	2161	O	ALA	A	297	6.347	-5.211	8.271	1.00	0.00	A	O
ATOM	2162	N	GLY	A	298	8.292	-6.083	7.538	1.00	0.00	A	N
ATOM	2163	CA	GLY	A	298	8.246	-5.607	6.185	1.00	0.00	A	C
ATOM	2164	C	GLY	A	298	7.223	-6.284	5.317	1.00	0.00	A	C
ATOM	2165	O	GLY	A	298	6.748	-5.679	4.357	1.00	0.00	A	O
ATOM	2166	N	THR	A	299	6.992	-7.599	5.503	1.00	0.00	A	N
ATOM	2167	CA	THR	A	299	6.101	-8.289	4.605	1.00	0.00	A	C
ATOM	2168	CB	THR	A	299	6.430	-9.749	4.449	1.00	0.00	A	C
ATOM	2169	OG1	THR	A	299	7.811	-9.945	4.191	1.00	0.00	A	O
ATOM	2170	CG2	THR	A	299	5.597	-10.305	3.289	1.00	0.00	A	C
ATOM	2171	C	THR	A	299	4.618	-8.187	4.831	1.00	0.00	A	C

Figure 7

ATOM	2172	O	THR A 299	3.898	-7.781	3.920	1.00	0.00	A	O
ATOM	2173	N	GLU A 300	4.135	-8.541	6.048	1.00	0.00	A	N
ATOM	2174	CA	GLU A 300	2.728	-8.750	6.294	1.00	0.00	A	C
ATOM	2175	CB	GLU A 300	2.445	-9.339	7.686	1.00	0.00	A	C
ATOM	2176	CG	GLU A 300	0.954	-9.455	8.018	1.00	0.00	A	C
ATOM	2177	CD	GLU A 300	0.253	-10.389	7.035	1.00	0.00	A	C
ATOM	2178	OE1	GLU A 300	0.931	-11.204	6.357	1.00	0.00	A	O
ATOM	2179	OE2	GLU A 300	-0.999	-10.292	6.954	1.00	0.00	A	O
ATOM	2180	C	GLU A 300	1.846	-7.542	6.114	1.00	0.00	A	C
ATOM	2181	O	GLU A 300	0.884	-7.613	5.347	1.00	0.00	A	O
ATOM	2182	N	THR A 301	2.176	-6.411	6.767	1.00	0.00	A	N
ATOM	2183	CA	THR A 301	1.382	-5.212	6.747	1.00	0.00	A	C
ATOM	2184	CB	THR A 301	1.942	-4.148	7.650	1.00	0.00	A	C
ATOM	2185	OG1	THR A 301	2.056	-4.644	8.975	1.00	0.00	A	O
ATOM	2186	CG2	THR A 301	1.001	-2.931	7.631	1.00	0.00	A	C
ATOM	2187	C	THR A 301	1.308	-4.604	5.381	1.00	0.00	A	C
ATOM	2188	O	THR A 301	0.233	-4.186	4.959	1.00	0.00	A	O
ATOM	2189	N	THR A 302	2.451	-4.531	4.668	1.00	0.00	A	N
ATOM	2190	CA	THR A 302	2.532	-3.923	3.364	1.00	0.00	A	C
ATOM	2191	CB	THR A 302	3.941	-3.852	2.859	1.00	0.00	A	C
ATOM	2192	OG1	THR A 302	4.746	-3.122	3.774	1.00	0.00	A	O
ATOM	2193	CG2	THR A 302	3.935	-3.156	1.490	1.00	0.00	A	C
ATOM	2194	C	THR A 302	1.726	-4.724	2.385	1.00	0.00	A	C
ATOM	2195	O	THR A 302	1.024	-4.168	1.536	1.00	0.00	A	O
ATOM	2196	N	SER A 303	1.809	-6.061	2.503	1.00	0.00	A	N
ATOM	2197	CA	SER A 303	1.118	-6.959	1.624	1.00	0.00	A	C
ATOM	2198	CB	SER A 303	1.493	-8.434	1.856	1.00	0.00	A	C
ATOM	2199	OG	SER A 303	2.821	-8.683	1.421	1.00	0.00	A	O
ATOM	2200	C	SER A 303	-0.362	-6.844	1.810	1.00	0.00	A	C
ATOM	2201	O	SER A 303	-1.116	-6.798	0.838	1.00	0.00	A	O
ATOM	2202	N	THR A 304	-0.804	-6.782	3.079	1.00	0.00	A	N
ATOM	2203	CA	THR A 304	-2.198	-6.705	3.394	1.00	0.00	A	C
ATOM	2204	CB	THR A 304	-2.471	-6.951	4.852	1.00	0.00	A	C
ATOM	2205	OG1	THR A 304	-1.957	-8.224	5.211	1.00	0.00	A	O
ATOM	2206	CG2	THR A 304	-3.989	-6.942	5.106	1.00	0.00	A	C
ATOM	2207	C	THR A 304	-2.750	-5.378	2.968	1.00	0.00	A	C
ATOM	2208	O	THR A 304	-3.896	-5.317	2.536	1.00	0.00	A	O
ATOM	2209	N	THR A 305	-1.961	-4.286	3.084	1.00	0.00	A	N
ATOM	2210	CA	THR A 305	-2.420	-2.981	2.692	1.00	0.00	A	C
ATOM	2211	CB	THR A 305	-1.592	-1.804	3.153	1.00	0.00	A	C
ATOM	2212	OG1	THR A 305	-0.238	-1.919	2.758	1.00	0.00	A	O
ATOM	2213	CG2	THR A 305	-1.700	-1.671	4.677	1.00	0.00	A	C
ATOM	2214	C	THR A 305	-2.598	-2.922	1.214	1.00	0.00	A	C
ATOM	2215	O	THR A 305	-3.559	-2.308	0.762	1.00	0.00	A	O
ATOM	2216	N	LEU A 306	-1.701	-3.563	0.435	1.00	0.00	A	N
ATOM	2217	CA	LEU A 306	-1.811	-3.585	-1.001	1.00	0.00	A	C
ATOM	2218	CB	LEU A 306	-0.625	-4.281	-1.693	1.00	0.00	A	C
ATOM	2219	CG	LEU A 306	0.721	-3.546	-1.545	1.00	0.00	A	C
ATOM	2220	CD2	LEU A 306	0.608	-2.087	-2.012	1.00	0.00	A	C
ATOM	2221	CD1	LEU A 306	1.855	-4.298	-2.259	1.00	0.00	A	C
ATOM	2222	C	LEU A 306	-3.047	-4.330	-1.423	1.00	0.00	A	C
ATOM	2223	O	LEU A 306	-3.783	-3.845	-2.279	1.00	0.00	A	O
ATOM	2224	N	ARG A 307	-3.316	-5.509	-0.814	1.00	0.00	A	N
ATOM	2225	CA	ARG A 307	-4.472	-6.294	-1.175	1.00	0.00	A	C
ATOM	2226	CB	ARG A 307	-4.464	-7.752	-0.667	1.00	0.00	A	C
ATOM	2227	CG	ARG A 307	-4.346	-7.935	0.841	1.00	0.00	A	C
ATOM	2228	CD	ARG A 307	-3.955	-9.364	1.228	1.00	0.00	A	C
ATOM	2229	NE	ARG A 307	-5.183	-10.203	1.266	1.00	0.00	A	N
ATOM	2230	CZ	ARG A 307	-5.664	-10.605	2.484	1.00	0.00	A	C
ATOM	2231	NH1	ARG A 307	-5.021	-10.207	3.625	1.00	0.00	A	N
ATOM	2232	NH2	ARG A 307	-6.766	-11.393	2.574	1.00	0.00	A	N
ATOM	2233	C	ARG A 307	-5.738	-5.586	-0.781	1.00	0.00	A	C
ATOM	2234	O	ARG A 307	-6.756	-5.680	-1.466	1.00	0.00	A	O
ATOM	2235	N	TYR A 308	-5.687	-4.833	0.324	1.00	0.00	A	N
ATOM	2236	CA	TYR A 308	-6.797	-4.103	0.859	1.00	0.00	A	C
ATOM	2237	CB	TYR A 308	-6.411	-3.378	2.150	1.00	0.00	A	C
ATOM	2238	CG	TYR A 308	-7.532	-3.556	3.094	1.00	0.00	A	C
ATOM	2239	CD1	TYR A 308	-8.809	-3.178	2.761	1.00	0.00	A	C
ATOM	2240	CD2	TYR A 308	-7.291	-4.180	4.296	1.00	0.00	A	C
ATOM	2241	CE1	TYR A 308	-9.832	-3.379	3.655	1.00	0.00	A	C
ATOM	2242	CE2	TYR A 308	-8.308	-4.383	5.190	1.00	0.00	A	C
ATOM	2243	CZ	TYR A 308	-9.577	-3.975	4.865	1.00	0.00	A	C
ATOM	2244	OH	TYR A 308	-10.628	-4.180	5.772	1.00	0.00	A	O
ATOM	2245	C	TYR A 308	-7.143	-2.993	-0.095	1.00	0.00	A	C
ATOM	2246	O	TYR A 308	-8.318	-2.706	-0.335	1.00	0.00	A	O

470/514

Figure 7

ATOM	2247	N	ALA	A	309	-6.092	-2.331	-0.626	1.00	0.00	A	N
ATOM	2248	CA	ALA	A	309	-6.197	-1.186	-1.485	1.00	0.00	A	C
ATOM	2249	CB	ALA	A	309	-4.829	-0.594	-1.863	1.00	0.00	A	C
ATOM	2250	C	ALA	A	309	-6.899	-1.556	-2.753	1.00	0.00	A	C
ATOM	2251	O	ALA	A	309	-7.799	-0.834	-3.171	1.00	0.00	A	O
ATOM	2252	N	LEU	A	310	-6.531	-2.708	-3.356	1.00	0.00	A	N
ATOM	2253	CA	LEU	A	310	-7.091	-3.200	-4.594	1.00	0.00	A	C
ATOM	2254	CB	LEU	A	310	-6.380	-4.478	-5.100	1.00	0.00	A	C
ATOM	2255	CG	LEU	A	310	-5.038	-4.310	-5.869	1.00	0.00	A	C
ATOM	2256	CD2	LEU	A	310	-4.099	-3.259	-5.250	1.00	0.00	A	C
ATOM	2257	CD1	LEU	A	310	-5.280	-4.011	-7.352	1.00	0.00	A	C
ATOM	2258	C	LEU	A	310	-8.552	-3.497	-4.407	1.00	0.00	A	C
ATOM	2259	O	LEU	A	310	-9.346	-3.212	-5.304	1.00	0.00	A	O
ATOM	2260	N	LEU	A	311	-8.931	-4.062	-3.234	1.00	0.00	A	N
ATOM	2261	CA	LEU	A	311	-10.307	-4.374	-2.919	1.00	0.00	A	C
ATOM	2262	CB	LEU	A	311	-10.484	-5.062	-1.559	1.00	0.00	A	C
ATOM	2263	CG	LEU	A	311	-11.963	-5.328	-1.211	1.00	0.00	A	C
ATOM	2264	CD2	LEU	A	311	-12.111	-5.870	0.221	1.00	0.00	A	C
ATOM	2265	CD1	LEU	A	311	-12.639	-6.227	-2.259	1.00	0.00	A	C
ATOM	2266	C	LEU	A	311	-11.122	-3.110	-2.877	1.00	0.00	A	C
ATOM	2267	O	LEU	A	311	-12.196	-3.051	-3.476	1.00	0.00	A	O
ATOM	2268	N	LEU	A	312	-10.584	-2.058	-2.222	1.00	0.00	A	N
ATOM	2269	CA	LEU	A	312	-11.225	-0.771	-2.093	1.00	0.00	A	C
ATOM	2270	CB	LEU	A	312	-10.433	0.199	-1.186	1.00	0.00	A	C
ATOM	2271	CG	LEU	A	312	-10.487	-0.166	0.314	1.00	0.00	A	C
ATOM	2272	CD2	LEU	A	312	-11.944	-0.274	0.795	1.00	0.00	A	C
ATOM	2273	CD1	LEU	A	312	-9.676	0.812	1.182	1.00	0.00	A	C
ATOM	2274	C	LEU	A	312	-11.395	-0.130	-3.445	1.00	0.00	A	C
ATOM	2275	O	LEU	A	312	-12.426	0.485	-3.715	1.00	0.00	A	O
ATOM	2276	N	LEU	A	313	-10.389	-0.269	-4.333	1.00	0.00	A	N
ATOM	2277	CA	LEU	A	313	-10.414	0.306	-5.659	1.00	0.00	A	C
ATOM	2278	CB	LEU	A	313	-9.082	0.139	-6.408	1.00	0.00	A	C
ATOM	2279	CG	LEU	A	313	-7.933	0.961	-5.794	1.00	0.00	A	C
ATOM	2280	CD2	LEU	A	313	-8.331	2.438	-5.650	1.00	0.00	A	C
ATOM	2281	CD1	LEU	A	313	-6.619	0.774	-6.574	1.00	0.00	A	C
ATOM	2282	C	LEU	A	313	-11.475	-0.368	-6.471	1.00	0.00	A	C
ATOM	2283	O	LEU	A	313	-12.085	0.230	-7.352	1.00	0.00	A	O
ATOM	2284	N	LEU	A	314	-11.676	-1.665	-6.210	1.00	0.00	A	N
ATOM	2285	CA	LEU	A	314	-12.657	-2.455	-6.885	1.00	0.00	A	C
ATOM	2286	CB	LEU	A	314	-12.440	-3.907	-6.417	1.00	0.00	A	C
ATOM	2287	CG	LEU	A	314	-13.101	-5.011	-7.235	1.00	0.00	A	C
ATOM	2288	CD2	LEU	A	314	-12.932	-6.364	-6.526	1.00	0.00	A	C
ATOM	2289	CD1	LEU	A	314	-12.526	-5.048	-8.657	1.00	0.00	A	C
ATOM	2290	C	LEU	A	314	-14.022	-1.953	-6.475	1.00	0.00	A	C
ATOM	2291	O	LEU	A	314	-14.908	-1.742	-7.306	1.00	0.00	A	O
ATOM	2292	N	LYS	A	315	-14.194	-1.716	-5.158	1.00	0.00	A	N
ATOM	2293	CA	LYS	A	315	-15.426	-1.292	-4.549	1.00	0.00	A	C
ATOM	2294	CB	LYS	A	315	-15.306	-1.207	-3.019	1.00	0.00	A	C
ATOM	2295	CG	LYS	A	315	-16.632	-0.971	-2.295	1.00	0.00	A	C
ATOM	2296	CD	LYS	A	315	-17.587	-2.165	-2.357	1.00	0.00	A	C
ATOM	2297	CE	LYS	A	315	-18.820	-1.996	-1.469	1.00	0.00	A	C
ATOM	2298	NZ	LYS	A	315	-19.642	-0.863	-1.947	1.00	0.00	A	N
ATOM	2299	C	LYS	A	315	-15.837	0.063	-5.037	1.00	0.00	A	C
ATOM	2300	O	LYS	A	315	-17.023	0.296	-5.276	1.00	0.00	A	O
ATOM	2301	N	HIS	A	316	-14.877	1.001	-5.196	1.00	0.00	A	N
ATOM	2302	CA	HIS	A	316	-15.210	2.327	-5.659	1.00	0.00	A	C
ATOM	2303	ND1	HIS	A	316	-16.430	4.408	-3.165	1.00	0.00	A	N
ATOM	2304	CG	HIS	A	316	-15.387	3.547	-3.416	1.00	0.00	A	C
ATOM	2305	CB	HIS	A	316	-14.691	3.447	-4.740	1.00	0.00	A	C
ATOM	2306	NE2	HIS	A	316	-16.041	3.315	-1.270	1.00	0.00	A	N
ATOM	2307	CD2	HIS	A	316	-15.162	2.885	-2.248	1.00	0.00	A	C
ATOM	2308	CE1	HIS	A	316	-16.782	4.230	-1.867	1.00	0.00	A	C
ATOM	2309	C	HIS	A	316	-14.553	2.579	-6.986	1.00	0.00	A	C
ATOM	2310	O	HIS	A	316	-13.425	3.073	-7.016	1.00	0.00	A	O
ATOM	2311	N	PRO	A	317	-15.218	2.308	-8.087	1.00	0.00	A	N
ATOM	2312	CA	PRO	A	317	-14.625	2.532	-9.380	1.00	0.00	A	C
ATOM	2313	CD	PRO	A	317	-16.211	1.249	-8.148	1.00	0.00	A	C
ATOM	2314	CB	PRO	A	317	-15.495	1.791	-10.392	1.00	0.00	A	C
ATOM	2315	CG	PRO	A	317	-16.130	0.665	-9.564	1.00	0.00	A	C
ATOM	2316	C	PRO	A	317	-14.443	3.975	-9.733	1.00	0.00	A	C
ATOM	2317	O	PRO	A	317	-13.632	4.253	-10.615	1.00	0.00	A	O
ATOM	2318	N	GLU	A	318	-15.200	4.887	-9.088	1.00	0.00	A	N
ATOM	2319	CA	GLU	A	318	-15.090	6.289	-9.384	1.00	0.00	A	C
ATOM	2320	CB	GLU	A	318	-16.118	7.185	-8.661	1.00	0.00	A	C
ATOM	2321	CG	GLU	A	318	-17.557	7.083	-9.175	1.00	0.00	A	C

471/514

Figure 7

ATOM	2322	CD	GLU	A	318	-18.354	6.212	-8.218	1.00	0.00	A	C
ATOM	2323	OE1	GLU	A	318	-18.703	6.721	-7.119	1.00	0.00	A	O
ATOM	2324	OE2	GLU	A	318	-18.625	5.030	-8.563	1.00	0.00	A	O
ATOM	2325	C	GLU	A	318	-13.743	6.780	-8.951	1.00	0.00	A	C
ATOM	2326	O	GLU	A	318	-13.116	7.581	-9.645	1.00	0.00	A	O
ATOM	2327	N	VAL	A	319	-13.282	6.300	-7.779	1.00	0.00	A	N
ATOM	2328	CA	VAL	A	319	-12.031	6.698	-7.202	1.00	0.00	A	C
ATOM	2329	CB	VAL	A	319	-11.834	6.142	-5.822	1.00	0.00	A	C
ATOM	2330	CG1	VAL	A	319	-10.452	6.559	-5.291	1.00	0.00	A	C
ATOM	2331	CG2	VAL	A	319	-12.998	6.631	-4.946	1.00	0.00	A	C
ATOM	2332	C	VAL	A	319	-10.904	6.224	-8.057	1.00	0.00	A	C
ATOM	2333	O	VAL	A	319	-9.940	6.962	-8.270	1.00	0.00	A	O
ATOM	2334	N	THR	A	320	-11.018	4.976	-8.565	1.00	0.00	A	N
ATOM	2335	CA	THR	A	320	-9.965	4.393	-9.343	1.00	0.00	A	C
ATOM	2336	CB	THR	A	320	-10.070	2.902	-9.536	1.00	0.00	A	C
ATOM	2337	OG1	THR	A	320	-8.805	2.398	-9.928	1.00	0.00	A	O
ATOM	2338	CG2	THR	A	320	-11.112	2.543	-10.602	1.00	0.00	A	C
ATOM	2339	C	THR	A	320	-9.829	5.117	-10.654	1.00	0.00	A	C
ATOM	2340	O	THR	A	320	-8.722	5.245	-11.172	1.00	0.00	A	O
ATOM	2341	N	ALA	A	321	-10.960	5.619	-11.202	1.00	0.00	A	N
ATOM	2342	CA	ALA	A	321	-10.972	6.345	-12.444	1.00	0.00	A	C
ATOM	2343	CB	ALA	A	321	-12.393	6.715	-12.899	1.00	0.00	A	C
ATOM	2344	C	ALA	A	321	-10.207	7.630	-12.311	1.00	0.00	A	C
ATOM	2345	O	ALA	A	321	-9.433	7.982	-13.203	1.00	0.00	A	O
ATOM	2346	N	LYS	A	322	-10.405	8.349	-11.185	1.00	0.00	A	N
ATOM	2347	CA	LYS	A	322	-9.755	9.611	-10.937	1.00	0.00	A	C
ATOM	2348	CB	LYS	A	322	-10.267	10.333	-9.683	1.00	0.00	A	C
ATOM	2349	CG	LYS	A	322	-11.674	10.904	-9.866	1.00	0.00	A	C
ATOM	2350	CD	LYS	A	322	-12.312	11.379	-8.563	1.00	0.00	A	C
ATOM	2351	CE	LYS	A	322	-13.716	11.952	-8.751	1.00	0.00	A	C
ATOM	2352	NZ	LYS	A	322	-14.261	12.375	-7.446	1.00	0.00	A	N
ATOM	2353	C	LYS	A	322	-8.278	9.404	-10.788	1.00	0.00	A	C
ATOM	2354	O	LYS	A	322	-7.492	10.240	-11.230	1.00	0.00	A	O
ATOM	2355	N	VAL	A	323	-7.882	8.281	-10.150	1.00	0.00	A	N
ATOM	2356	CA	VAL	A	323	-6.497	7.954	-9.950	1.00	0.00	A	C
ATOM	2357	CB	VAL	A	323	-6.317	6.760	-9.064	1.00	0.00	A	C
ATOM	2358	CG1	VAL	A	323	-4.822	6.397	-9.004	1.00	0.00	A	C
ATOM	2359	CG2	VAL	A	323	-6.931	7.097	-7.694	1.00	0.00	A	C
ATOM	2360	C	VAL	A	323	-5.850	7.691	-11.277	1.00	0.00	A	C
ATOM	2361	O	VAL	A	323	-4.721	8.114	-11.518	1.00	0.00	A	O
ATOM	2362	N	GLN	A	324	-6.571	6.998	-12.178	1.00	0.00	A	N
ATOM	2363	CA	GLN	A	324	-6.069	6.676	-13.484	1.00	0.00	A	C
ATOM	2364	CB	GLN	A	324	-6.957	5.668	-14.235	1.00	0.00	A	C
ATOM	2365	CG	GLN	A	324	-6.986	4.308	-13.527	1.00	0.00	A	C
ATOM	2366	CD	GLN	A	324	-7.846	3.333	-14.316	1.00	0.00	A	C
ATOM	2367	OE1	GLN	A	324	-7.403	2.774	-15.318	1.00	0.00	A	O
ATOM	2368	NE2	GLN	A	324	-9.104	3.108	-13.849	1.00	0.00	A	N
ATOM	2369	C	GLN	A	324	-5.909	7.931	-14.299	1.00	0.00	A	C
ATOM	2370	O	GLN	A	324	-5.027	8.002	-15.155	1.00	0.00	A	O
ATOM	2371	N	GLU	A	325	-6.773	8.940	-14.059	1.00	0.00	A	N
ATOM	2372	CA	GLU	A	325	-6.712	10.197	-14.759	1.00	0.00	A	C
ATOM	2373	CB	GLU	A	325	-7.878	11.129	-14.386	1.00	0.00	A	C
ATOM	2374	CG	GLU	A	325	-9.243	10.592	-14.817	1.00	0.00	A	C
ATOM	2375	CD	GLU	A	325	-10.306	11.581	-14.364	1.00	0.00	A	C
ATOM	2376	OE1	GLU	A	325	-10.258	12.001	-13.178	1.00	0.00	A	O
ATOM	2377	OE2	GLU	A	325	-11.178	11.934	-15.202	1.00	0.00	A	O
ATOM	2378	C	GLU	A	325	-5.444	10.895	-14.378	1.00	0.00	A	C
ATOM	2379	O	GLU	A	325	-4.764	11.460	-15.237	1.00	0.00	A	O
ATOM	2380	N	GLU	A	326	-5.099	10.849	-13.075	1.00	0.00	A	N
ATOM	2381	CA	GLU	A	326	-3.906	11.483	-12.597	1.00	0.00	A	C
ATOM	2382	CB	GLU	A	326	-3.791	11.554	-11.068	1.00	0.00	A	C
ATOM	2383	CG	GLU	A	326	-4.640	12.684	-10.489	1.00	0.00	A	C
ATOM	2384	CD	GLU	A	326	-4.179	12.953	-9.070	1.00	0.00	A	C
ATOM	2385	OE1	GLU	A	326	-3.451	12.094	-8.506	1.00	0.00	A	O
ATOM	2386	OE2	GLU	A	326	-4.552	14.031	-8.532	1.00	0.00	A	O
ATOM	2387	C	GLU	A	326	-2.697	10.792	-13.126	1.00	0.00	A	C
ATOM	2388	O	GLU	A	326	-1.729	11.466	-13.477	1.00	0.00	A	O
ATOM	2389	N	ILE	A	327	-2.734	9.441	-13.189	1.00	0.00	A	N
ATOM	2390	CA	ILE	A	327	-1.602	8.704	-13.660	1.00	0.00	A	C
ATOM	2391	CB	ILE	A	327	-1.570	7.233	-13.320	1.00	0.00	A	C
ATOM	2392	CG2	ILE	A	327	-1.399	7.118	-11.803	1.00	0.00	A	C
ATOM	2393	CG1	ILE	A	327	-2.766	6.450	-13.854	1.00	0.00	A	C
ATOM	2394	CD1	ILE	A	327	-2.661	4.954	-13.575	1.00	0.00	A	C
ATOM	2395	C	ILE	A	327	-1.347	8.962	-15.097	1.00	0.00	A	C
ATOM	2396	O	ILE	A	327	-0.195	9.197	-15.405	1.00	0.00	A	O

Figure 7

ATOM	2397	N	GLU	A	328	-2.362	8.996	-15.985	1.00	0.00	A	N
ATOM	2398	CA	GLU	A	328	-2.098	9.250	-17.380	1.00	0.00	A	C
ATOM	2399	CB	GLU	A	328	-3.255	8.850	-18.310	1.00	0.00	A	C
ATOM	2400	CG	GLU	A	328	-4.638	9.369	-17.930	1.00	0.00	A	C
ATOM	2401	CD	GLU	A	328	-5.597	8.577	-18.801	1.00	0.00	A	C
ATOM	2402	OE1	GLU	A	328	-5.512	8.727	-20.048	1.00	0.00	A	O
ATOM	2403	OE2	GLU	A	328	-6.409	7.795	-18.239	1.00	0.00	A	O
ATOM	2404	C	GLU	A	328	-1.640	10.657	-17.638	1.00	0.00	A	C
ATOM	2405	O	GLU	A	328	-0.846	10.890	-18.548	1.00	0.00	A	O
ATOM	2406	N	ARG	A	329	-2.150	11.650	-16.890	1.00	0.00	A	N
ATOM	2407	CA	ARG	A	329	-1.686	12.989	-17.124	1.00	0.00	A	C
ATOM	2408	CB	ARG	A	329	-2.581	14.048	-16.460	1.00	0.00	A	C
ATOM	2409	CG	ARG	A	329	-3.904	14.239	-17.201	1.00	0.00	A	C
ATOM	2410	CD	ARG	A	329	-4.823	15.286	-16.573	1.00	0.00	A	C
ATOM	2411	NE	ARG	A	329	-5.392	14.689	-15.333	1.00	0.00	A	N
ATOM	2412	CZ	ARG	A	329	-5.498	15.440	-14.199	1.00	0.00	A	C
ATOM	2413	NH1	ARG	A	329	-5.039	16.725	-14.186	1.00	0.00	A	N
ATOM	2414	NH2	ARG	A	329	-6.060	14.903	-13.077	1.00	0.00	A	N
ATOM	2415	C	ARG	A	329	-0.271	13.208	-16.651	1.00	0.00	A	C
ATOM	2416	O	ARG	A	329	0.551	13.760	-17.381	1.00	0.00	A	O
ATOM	2417	N	VAL	A	330	0.038	12.803	-15.403	1.00	0.00	A	N
ATOM	2418	CA	VAL	A	330	1.324	13.048	-14.790	1.00	0.00	A	C
ATOM	2419	CB	VAL	A	330	1.276	12.815	-13.305	1.00	0.00	A	C
ATOM	2420	CG1	VAL	A	330	2.669	13.054	-12.698	1.00	0.00	A	C
ATOM	2421	CG2	VAL	A	330	0.183	13.722	-12.714	1.00	0.00	A	C
ATOM	2422	C	VAL	A	330	2.432	12.204	-15.357	1.00	0.00	A	C
ATOM	2423	O	VAL	A	330	3.540	12.682	-15.596	1.00	0.00	A	O
ATOM	2424	N	ILE	A	331	2.149	10.910	-15.569	1.00	0.00	A	N
ATOM	2425	CA	ILE	A	331	3.101	9.929	-16.005	1.00	0.00	A	C
ATOM	2426	CB	ILE	A	331	3.104	8.778	-15.030	1.00	0.00	A	C
ATOM	2427	CG2	ILE	A	331	3.987	7.625	-15.526	1.00	0.00	A	C
ATOM	2428	CG1	ILE	A	331	3.512	9.297	-13.642	1.00	0.00	A	C
ATOM	2429	CD1	ILE	A	331	3.219	8.307	-12.517	1.00	0.00	A	C
ATOM	2430	C	ILE	A	331	2.587	9.462	-17.332	1.00	0.00	A	C
ATOM	2431	O	ILE	A	331	1.400	9.499	-17.609	1.00	0.00	A	O
ATOM	2432	N	GLY	A	332	3.421	9.027	-18.272	1.00	0.00	A	N
ATOM	2433	CA	GLY	A	332	2.721	8.611	-19.449	1.00	0.00	A	C
ATOM	2434	C	GLY	A	332	2.413	7.152	-19.318	1.00	0.00	A	C
ATOM	2435	O	GLY	A	332	2.407	6.575	-18.231	1.00	0.00	A	O
ATOM	2436	N	ARG	A	333	2.036	6.532	-20.445	1.00	0.00	A	N
ATOM	2437	CA	ARG	A	333	1.877	5.115	-20.446	1.00	0.00	A	C
ATOM	2438	CB	ARG	A	333	1.064	4.599	-21.647	1.00	0.00	A	C
ATOM	2439	CG	ARG	A	333	-0.386	5.109	-21.688	1.00	0.00	A	C
ATOM	2440	CD	ARG	A	333	-1.356	4.393	-20.738	1.00	0.00	A	C
ATOM	2441	NE	ARG	A	333	-2.718	4.946	-21.001	1.00	0.00	A	N
ATOM	2442	CZ	ARG	A	333	-3.734	4.781	-20.103	1.00	0.00	A	C
ATOM	2443	NH1	ARG	A	333	-3.513	4.132	-18.923	1.00	0.00	A	N
ATOM	2444	NH2	ARG	A	333	-4.977	5.269	-20.385	1.00	0.00	A	N
ATOM	2445	C	ARG	A	333	3.257	4.514	-20.495	1.00	0.00	A	C
ATOM	2446	O	ARG	A	333	3.494	3.418	-19.993	1.00	0.00	A	O
ATOM	2447	N	ASN	A	334	4.200	5.206	-21.171	1.00	0.00	A	N
ATOM	2448	CA	ASN	A	334	5.512	4.658	-21.399	1.00	0.00	A	C
ATOM	2449	CB	ASN	A	334	6.319	5.522	-22.381	1.00	0.00	A	C
ATOM	2450	CG	ASN	A	334	5.541	5.550	-23.689	1.00	0.00	A	C
ATOM	2451	OD1	ASN	A	334	4.898	4.571	-24.064	1.00	0.00	A	O
ATOM	2452	ND2	ASN	A	334	5.584	6.711	-24.396	1.00	0.00	A	N
ATOM	2453	C	ASN	A	334	6.357	4.487	-20.161	1.00	0.00	A	C
ATOM	2454	O	ASN	A	334	6.608	3.365	-19.728	1.00	0.00	A	O
ATOM	2455	N	ARG	A	335	6.781	5.596	-19.521	1.00	0.00	A	N
ATOM	2456	CA	ARG	A	335	7.698	5.507	-18.413	1.00	0.00	A	C
ATOM	2457	CB	ARG	A	335	8.536	6.786	-18.188	1.00	0.00	A	C
ATOM	2458	CG	ARG	A	335	7.751	8.101	-18.131	1.00	0.00	A	C
ATOM	2459	CD	ARG	A	335	6.872	8.327	-16.904	1.00	0.00	A	C
ATOM	2460	NE	ARG	A	335	7.716	8.877	-15.806	1.00	0.00	A	N
ATOM	2461	CZ	ARG	A	335	7.344	10.042	-15.202	1.00	0.00	A	C
ATOM	2462	NH1	ARG	A	335	6.311	10.774	-15.714	1.00	0.00	A	N
ATOM	2463	NH2	ARG	A	335	7.996	10.474	-14.083	1.00	0.00	A	N
ATOM	2464	C	ARG	A	335	7.025	5.064	-17.156	1.00	0.00	A	C
ATOM	2465	O	ARG	A	335	5.803	5.110	-17.021	1.00	0.00	A	O
ATOM	2466	N	SER	A	336	7.838	4.563	-16.208	1.00	0.00	A	N
ATOM	2467	CA	SER	A	336	7.318	4.058	-14.973	1.00	0.00	A	C
ATOM	2468	CB	SER	A	336	8.187	2.942	-14.379	1.00	0.00	A	C
ATOM	2469	CG	SER	A	336	9.483	3.438	-14.078	1.00	0.00	A	O
ATOM	2470	C	SER	A	336	7.255	5.170	-13.976	1.00	0.00	A	C
ATOM	2471	O	SER	A	336	7.911	6.199	-14.115	1.00	0.00	A	O

473/514

Figure 7

ATOM	2472	N	PRO	A	337	6.458	4.962	-12.963	1.00	0.00	A	N
ATOM	2473	CA	PRO	A	337	6.292	5.960	-11.943	1.00	0.00	A	C
ATOM	2474	CD	PRO	A	337	5.247	4.173	-13.143	1.00	0.00	A	C
ATOM	2475	CB	PRO	A	337	5.039	5.561	-11.165	1.00	0.00	A	C
ATOM	2476	CG	PRO	A	337	4.203	4.785	-12.195	1.00	0.00	A	C
ATOM	2477	C	PRO	A	337	7.496	6.086	-11.076	1.00	0.00	A	C
ATOM	2478	O	PRO	A	337	8.321	5.175	-11.050	1.00	0.00	A	O
ATOM	2479	N	CYS	A	338	7.615	7.235	-10.384	1.00	0.00	A	N
ATOM	2480	CA	CYS	A	338	8.694	7.486	-9.477	1.00	0.00	A	C
ATOM	2481	CB	CYS	A	338	9.754	8.470	-9.993	1.00	0.00	A	C
ATOM	2482	SG	CYS	A	338	10.500	8.019	-11.574	1.00	0.00	A	S
ATOM	2483	C	CYS	A	338	8.083	8.243	-8.350	1.00	0.00	A	C
ATOM	2484	O	CYS	A	338	6.940	8.686	-8.422	1.00	0.00	A	O
ATOM	2485	N	MET	A	339	8.887	8.438	-7.297	1.00	0.00	A	N
ATOM	2486	CA	MET	A	339	8.518	9.083	-6.077	1.00	0.00	A	C
ATOM	2487	CB	MET	A	339	9.676	9.004	-5.073	1.00	0.00	A	C
ATOM	2488	CG	MET	A	339	9.224	8.923	-3.620	1.00	0.00	A	C
ATOM	2489	SD	MET	A	339	8.442	7.336	-3.201	1.00	0.00	A	S
ATOM	2490	CE	MET	A	339	6.751	7.855	-3.600	1.00	0.00	A	C
ATOM	2491	C	MET	A	339	8.191	10.527	-6.343	1.00	0.00	A	C
ATOM	2492	O	MET	A	339	7.324	11.103	-5.685	1.00	0.00	A	O
ATOM	2493	N	GLN	A	340	8.883	11.128	-7.333	1.00	0.00	A	N
ATOM	2494	CA	GLN	A	340	8.808	12.510	-7.732	1.00	0.00	A	C
ATOM	2495	CB	GLN	A	340	9.683	12.773	-8.969	1.00	0.00	A	C
ATOM	2496	CG	GLN	A	340	11.154	12.389	-8.792	1.00	0.00	A	C
ATOM	2497	CD	GLN	A	340	11.789	12.373	-10.175	1.00	0.00	A	C
ATOM	2498	OEL	GLN	A	340	11.163	12.755	-11.164	1.00	0.00	A	O
ATOM	2499	NE2	GLN	A	340	13.064	11.908	-10.256	1.00	0.00	A	N
ATOM	2500	C	GLN	A	340	7.408	12.839	-8.165	1.00	0.00	A	C
ATOM	2501	O	GLN	A	340	6.917	13.947	-7.954	1.00	0.00	A	O
ATOM	2502	N	ASP	A	341	6.741	11.862	-8.793	1.00	0.00	A	N
ATOM	2503	CA	ASP	A	341	5.438	12.001	-9.370	1.00	0.00	A	C
ATOM	2504	CB	ASP	A	341	5.025	10.747	-10.158	1.00	0.00	A	C
ATOM	2505	CG	ASP	A	341	5.965	10.615	-11.348	1.00	0.00	A	C
ATOM	2506	OD1	ASP	A	341	6.438	11.670	-11.850	1.00	0.00	A	O
ATOM	2507	OD2	ASP	A	341	6.230	9.457	-11.764	1.00	0.00	A	O
ATOM	2508	C	ASP	A	341	4.364	12.247	-8.354	1.00	0.00	A	C
ATOM	2509	O	ASP	A	341	3.332	12.813	-8.713	1.00	0.00	A	O
ATOM	2510	N	ARG	A	342	4.542	11.792	-7.092	1.00	0.00	A	N
ATOM	2511	CA	ARG	A	342	3.454	11.862	-6.148	1.00	0.00	A	C
ATOM	2512	CB	ARG	A	342	3.533	10.950	-4.915	1.00	0.00	A	C
ATOM	2513	CG	ARG	A	342	4.672	11.146	-3.932	1.00	0.00	A	C
ATOM	2514	CD	ARG	A	342	4.397	10.319	-2.679	1.00	0.00	A	C
ATOM	2515	NE	ARG	A	342	5.632	10.297	-1.857	1.00	0.00	A	N
ATOM	2516	CZ	ARG	A	342	5.528	10.110	-0.513	1.00	0.00	A	C
ATOM	2517	NH1	ARG	A	342	4.299	10.071	0.079	1.00	0.00	A	N
ATOM	2518	NH2	ARG	A	342	6.654	9.948	0.237	1.00	0.00	A	N
ATOM	2519	C	ARG	A	342	3.051	13.245	-5.737	1.00	0.00	A	C
ATOM	2520	O	ARG	A	342	1.881	13.444	-5.409	1.00	0.00	A	O
ATOM	2521	N	GLY	A	343	3.989	14.218	-5.750	1.00	0.00	A	N
ATOM	2522	CA	GLY	A	343	3.714	15.598	-5.422	1.00	0.00	A	C
ATOM	2523	C	GLY	A	343	2.730	16.157	-6.416	1.00	0.00	A	C
ATOM	2524	O	GLY	A	343	1.925	17.028	-6.096	1.00	0.00	A	O
ATOM	2525	N	HIS	A	344	2.828	15.694	-7.672	1.00	0.00	A	N
ATOM	2526	CA	HIS	A	344	1.957	16.045	-8.752	1.00	0.00	A	C
ATOM	2527	ND1	HIS	A	344	3.809	17.956	-10.392	1.00	0.00	A	N
ATOM	2528	CG	HIS	A	344	3.824	16.584	-10.291	1.00	0.00	A	C
ATOM	2529	CB	HIS	A	344	2.588	15.760	-10.121	1.00	0.00	A	C
ATOM	2530	NE2	HIS	A	344	5.942	17.335	-10.480	1.00	0.00	A	N
ATOM	2531	CD2	HIS	A	344	5.134	16.220	-10.347	1.00	0.00	A	C
ATOM	2532	CE1	HIS	A	344	5.101	18.354	-10.502	1.00	0.00	A	C
ATOM	2533	C	HIS	A	344	0.643	15.316	-8.666	1.00	0.00	A	C
ATOM	2534	O	HIS	A	344	-0.297	15.683	-9.371	1.00	0.00	A	O
ATOM	2535	N	MET	A	345	0.564	14.208	-7.892	1.00	0.00	A	N
ATOM	2536	CA	MET	A	345	-0.664	13.450	-7.870	1.00	0.00	A	C
ATOM	2537	CB	MET	A	345	-0.410	11.974	-8.195	1.00	0.00	A	C
ATOM	2538	CG	MET	A	345	0.117	11.715	-9.604	1.00	0.00	A	C
ATOM	2539	SD	MET	A	345	0.782	10.039	-9.809	1.00	0.00	A	S
ATOM	2540	CE	MET	A	345	0.579	10.023	-11.607	1.00	0.00	A	C
ATOM	2541	C	MET	A	345	-1.306	13.441	-6.503	1.00	0.00	A	C
ATOM	2542	O	MET	A	345	-1.302	12.396	-5.850	1.00	0.00	A	O
ATOM	2543	N	PRO	A	346	-1.914	14.533	-6.081	1.00	0.00	A	N
ATOM	2544	CA	PRO	A	346	-2.550	14.677	-4.790	1.00	0.00	A	C
ATOM	2545	CD	PRO	A	346	-2.308	15.597	-6.985	1.00	0.00	A	C
ATOM	2546	CB	PRO	A	346	-3.061	16.111	-4.745	1.00	0.00	A	C

474/514

Figure 7

ATOM	2547	CG	PRO	A	346	-3.357	16.420	-6.220	1.00	0.00	A	C
ATOM	2548	C	PRO	A	346	-3.680	13.723	-4.547	1.00	0.00	A	C
ATOM	2549	O	PRO	A	346	-3.837	13.301	-3.404	1.00	0.00	A	O
ATOM	2550	N	TYR	A	347	-4.468	13.390	-5.592	1.00	0.00	A	N
ATOM	2551	CA	TYR	A	347	-5.609	12.528	-5.452	1.00	0.00	A	C
ATOM	2552	CB	TYR	A	347	-6.435	12.420	-6.750	1.00	0.00	A	C
ATOM	2553	CG	TYR	A	347	-7.759	11.766	-6.492	1.00	0.00	A	C
ATOM	2554	CD1	TYR	A	347	-8.841	12.546	-6.167	1.00	0.00	A	C
ATOM	2555	CD2	TYR	A	347	-7.952	10.404	-6.581	1.00	0.00	A	C
ATOM	2556	CE1	TYR	A	347	-10.073	11.987	-5.928	1.00	0.00	A	C
ATOM	2557	CE2	TYR	A	347	-9.183	9.837	-6.343	1.00	0.00	A	C
ATOM	2558	CZ	TYR	A	347	-10.252	10.632	-6.016	1.00	0.00	A	C
ATOM	2559	OH	TYR	A	347	-11.520	10.064	-5.771	1.00	0.00	A	O
ATOM	2560	C	TYR	A	347	-5.143	11.156	-5.095	1.00	0.00	A	C
ATOM	2561	O	TYR	A	347	-5.716	10.549	-4.196	1.00	0.00	A	O
ATOM	2562	N	THR	A	348	-4.092	10.655	-5.787	1.00	0.00	A	N
ATOM	2563	CA	THR	A	348	-3.551	9.334	-5.597	1.00	0.00	A	C
ATOM	2564	CB	THR	A	348	-2.449	9.010	-6.579	1.00	0.00	A	C
ATOM	2565	OG1	THR	A	348	-2.935	9.079	-7.912	1.00	0.00	A	O
ATOM	2566	CG2	THR	A	348	-1.912	7.596	-6.295	1.00	0.00	A	C
ATOM	2567	C	THR	A	348	-2.993	9.205	-4.215	1.00	0.00	A	C
ATOM	2568	O	THR	A	348	-3.235	8.195	-3.547	1.00	0.00	A	O
ATOM	2569	N	ASP	A	349	-2.269	10.250	-3.749	1.00	0.00	A	N
ATOM	2570	CA	ASP	A	349	-1.649	10.297	-2.447	1.00	0.00	A	C
ATOM	2571	CB	ASP	A	349	-0.780	11.557	-2.243	1.00	0.00	A	C
ATOM	2572	CG	ASP	A	349	0.253	11.311	-1.139	1.00	0.00	A	C
ATOM	2573	OD1	ASP	A	349	0.277	10.185	-0.572	1.00	0.00	A	O
ATOM	2574	OD2	ASP	A	349	1.038	12.253	-0.858	1.00	0.00	A	O
ATOM	2575	C	ASP	A	349	-2.745	10.271	-1.414	1.00	0.00	A	C
ATOM	2576	O	ASP	A	349	-2.603	9.685	-0.342	1.00	0.00	A	O
ATOM	2577	N	ALA	A	350	-3.884	10.911	-1.740	1.00	0.00	A	N
ATOM	2578	CA	ALA	A	350	-5.042	10.920	-0.895	1.00	0.00	A	C
ATOM	2579	CB	ALA	A	350	-6.149	11.828	-1.438	1.00	0.00	A	C
ATOM	2580	C	ALA	A	350	-5.611	9.532	-0.791	1.00	0.00	A	C
ATOM	2581	O	ALA	A	350	-6.048	9.128	0.282	1.00	0.00	A	O
ATOM	2582	N	VAL	A	351	-5.631	8.780	-1.912	1.00	0.00	A	N
ATOM	2583	CA	VAL	A	351	-6.180	7.455	-1.986	1.00	0.00	A	C
ATOM	2584	CB	VAL	A	351	-6.194	6.911	-3.389	1.00	0.00	A	C
ATOM	2585	CG1	VAL	A	351	-6.652	5.444	-3.369	1.00	0.00	A	C
ATOM	2586	CG2	VAL	A	351	-7.095	7.820	-4.244	1.00	0.00	A	C
ATOM	2587	C	VAL	A	351	-5.364	6.526	-1.135	1.00	0.00	A	C
ATOM	2588	O	VAL	A	351	-5.933	5.703	-0.418	1.00	0.00	A	O
ATOM	2589	N	VAL	A	352	-4.017	6.647	-1.201	1.00	0.00	A	N
ATOM	2590	CA	VAL	A	352	-3.118	5.801	-0.460	1.00	0.00	A	C
ATOM	2591	CB	VAL	A	352	-1.677	6.051	-0.798	1.00	0.00	A	C
ATOM	2592	CG1	VAL	A	352	-0.802	5.166	0.106	1.00	0.00	A	C
ATOM	2593	CG2	VAL	A	352	-1.472	5.784	-2.301	1.00	0.00	A	C
ATOM	2594	C	VAL	A	352	-3.288	6.039	1.012	1.00	0.00	A	C
ATOM	2595	O	VAL	A	352	-3.401	5.085	1.779	1.00	0.00	A	O
ATOM	2596	N	HIS	A	353	-3.343	7.320	1.429	1.00	0.00	A	N
ATOM	2597	CA	HIS	A	353	-3.485	7.671	2.817	1.00	0.00	A	C
ATOM	2598	ND1	HIS	A	353	-0.924	9.267	2.264	1.00	0.00	A	N
ATOM	2599	CG	HIS	A	353	-1.895	9.581	3.182	1.00	0.00	A	C
ATOM	2600	CB	HIS	A	353	-3.332	9.173	3.076	1.00	0.00	A	C
ATOM	2601	NE2	HIS	A	353	0.073	10.458	3.851	1.00	0.00	A	N
ATOM	2602	CD2	HIS	A	353	-1.270	10.306	4.144	1.00	0.00	A	C
ATOM	2603	CE1	HIS	A	353	0.234	9.816	2.712	1.00	0.00	A	C
ATOM	2604	C	HIS	A	353	-4.807	7.220	3.357	1.00	0.00	A	C
ATOM	2605	O	HIS	A	353	-4.865	6.698	4.467	1.00	0.00	A	O
ATOM	2606	N	GLU	A	354	-5.891	7.368	2.574	1.00	0.00	A	N
ATOM	2607	CA	GLU	A	354	-7.204	6.957	2.986	1.00	0.00	A	C
ATOM	2608	CB	GLU	A	354	-8.360	7.402	2.094	1.00	0.00	A	C
ATOM	2609	CG	GLU	A	354	-8.880	8.757	2.544	1.00	0.00	A	C
ATOM	2610	CD	GLU	A	354	-9.246	8.642	4.018	1.00	0.00	A	C
ATOM	2611	OE1	GLU	A	354	-10.134	7.813	4.330	1.00	0.00	A	O
ATOM	2612	OE2	GLU	A	354	-8.639	9.371	4.850	1.00	0.00	A	O
ATOM	2613	C	GLU	A	354	-7.316	5.486	3.136	1.00	0.00	A	C
ATOM	2614	O	GLU	A	354	-8.102	5.048	3.983	1.00	0.00	A	O
ATOM	2615	N	VAL	A	355	-6.592	4.698	2.299	1.00	0.00	A	N
ATOM	2616	CA	VAL	A	355	-6.696	3.276	2.489	1.00	0.00	A	C
ATOM	2617	CB	VAL	A	355	-6.211	2.339	1.410	1.00	0.00	A	C
ATOM	2618	CG1	VAL	A	355	-7.050	2.587	0.162	1.00	0.00	A	C
ATOM	2619	CG2	VAL	A	355	-4.703	2.417	1.187	1.00	0.00	A	C
ATOM	2620	C	VAL	A	355	-6.053	2.898	3.782	1.00	0.00	A	C
ATOM	2621	O	VAL	A	355	-6.641	2.118	4.525	1.00	0.00	A	O

475/514

Figure 7

ATOM	2622	N	GLN	A	356	-4.895	3.508	4.113	1.00	0.00	A	N
ATOM	2623	CA	GLN	A	356	-4.219	3.214	5.343	1.00	0.00	A	C
ATOM	2624	CB	GLN	A	356	-2.837	3.875	5.464	1.00	0.00	A	C
ATOM	2625	CG	GLN	A	356	-1.814	3.279	4.500	1.00	0.00	A	C
ATOM	2626	CD	GLN	A	356	-0.420	3.663	4.971	1.00	0.00	A	C
ATOM	2627	OE1	GLN	A	356	0.188	4.618	4.488	1.00	0.00	A	O
ATOM	2628	NE2	GLN	A	356	0.108	2.875	5.947	1.00	0.00	A	N
ATOM	2629	C	GLN	A	356	-5.014	3.639	6.547	1.00	0.00	A	C
ATOM	2630	O	GLN	A	356	-5.077	2.864	7.499	1.00	0.00	A	O
ATOM	2631	N	ARG	A	357	-5.639	4.845	6.552	1.00	0.00	A	N
ATOM	2632	CA	ARG	A	357	-6.340	5.256	7.746	1.00	0.00	A	C
ATOM	2633	CB	ARG	A	357	-6.710	6.751	7.904	1.00	0.00	A	C
ATOM	2634	CG	ARG	A	357	-7.857	7.265	7.045	1.00	0.00	A	C
ATOM	2635	CD	ARG	A	357	-8.626	8.388	7.755	1.00	0.00	A	C
ATOM	2636	NE	ARG	A	357	-10.023	8.340	7.253	1.00	0.00	A	N
ATOM	2637	CZ	ARG	A	357	-10.924	7.507	7.848	1.00	0.00	A	C
ATOM	2638	NH1	ARG	A	357	-10.635	6.881	9.029	1.00	0.00	A	N
ATOM	2639	NH2	ARG	A	357	-12.110	7.274	7.222	1.00	0.00	A	N
ATOM	2640	C	ARG	A	357	-7.605	4.463	7.942	1.00	0.00	A	C
ATOM	2641	O	ARG	A	357	-7.964	4.123	9.066	1.00	0.00	A	O
ATOM	2642	N	TYR	A	358	-8.311	4.151	6.840	1.00	0.00	A	N
ATOM	2643	CA	TYR	A	358	-9.547	3.410	6.870	1.00	0.00	A	C
ATOM	2644	CB	TYR	A	358	-10.169	3.331	5.457	1.00	0.00	A	C
ATOM	2645	CG	TYR	A	358	-11.191	2.243	5.351	1.00	0.00	A	C
ATOM	2646	CD1	TYR	A	358	-12.386	2.290	6.027	1.00	0.00	A	C
ATOM	2647	CD2	TYR	A	358	-10.961	1.172	4.515	1.00	0.00	A	C
ATOM	2648	CE1	TYR	A	358	-13.304	1.271	5.887	1.00	0.00	A	C
ATOM	2649	CE2	TYR	A	358	-11.879	0.157	4.374	1.00	0.00	A	C
ATOM	2650	CZ	TYR	A	358	-13.060	0.200	5.065	1.00	0.00	A	C
ATOM	2651	OH	TYR	A	358	-14.005	-0.841	4.926	1.00	0.00	A	O
ATOM	2652	C	TYR	A	358	-9.359	2.004	7.372	1.00	0.00	A	C
ATOM	2653	O	TYR	A	358	-10.098	1.562	8.251	1.00	0.00	A	O
ATOM	2654	N	ILE	A	359	-8.357	1.272	6.840	1.00	0.00	A	N
ATOM	2655	CA	ILE	A	359	-8.170	-0.125	7.145	1.00	0.00	A	C
ATOM	2656	CB	ILE	A	359	-7.277	-0.849	6.162	1.00	0.00	A	C
ATOM	2657	CG2	ILE	A	359	-7.983	-0.750	4.803	1.00	0.00	A	C
ATOM	2658	CG1	ILE	A	359	-5.823	-0.346	6.105	1.00	0.00	A	C
ATOM	2659	CD1	ILE	A	359	-4.882	-0.955	7.133	1.00	0.00	A	C
ATOM	2660	C	ILE	A	359	-7.773	-0.382	8.564	1.00	0.00	A	C
ATOM	2661	O	ILE	A	359	-8.245	-1.382	9.110	1.00	0.00	A	O
ATOM	2662	N	ASP	A	360	-6.925	0.504	9.167	1.00	0.00	A	N
ATOM	2663	CA	ASP	A	360	-6.473	0.448	10.547	1.00	0.00	A	C
ATOM	2664	CB	ASP	A	360	-7.611	0.861	11.495	1.00	0.00	A	C
ATOM	2665	CG	ASP	A	360	-7.033	1.146	12.861	1.00	0.00	A	C
ATOM	2666	OD1	ASP	A	360	-6.541	2.281	13.100	1.00	0.00	A	O
ATOM	2667	OD2	ASP	A	360	-7.094	0.223	13.704	1.00	0.00	A	O
ATOM	2668	C	ASP	A	360	-5.930	-0.919	10.910	1.00	0.00	A	C
ATOM	2669	O	ASP	A	360	-6.515	-1.661	11.697	1.00	0.00	A	O
ATOM	2670	N	LEU	A	361	-4.822	-1.299	10.253	1.00	0.00	A	N
ATOM	2671	CA	LEU	A	361	-4.271	-2.622	10.299	1.00	0.00	A	C
ATOM	2672	CB	LEU	A	361	-3.150	-2.762	9.263	1.00	0.00	A	C
ATOM	2673	CG	LEU	A	361	-3.164	-4.147	8.610	1.00	0.00	A	C
ATOM	2674	CD2	LEU	A	361	-2.022	-4.314	7.590	1.00	0.00	A	C
ATOM	2675	CD1	LEU	A	361	-4.549	-4.371	7.966	1.00	0.00	A	C
ATOM	2676	C	LEU	A	361	-3.783	-2.992	11.671	1.00	0.00	A	C
ATOM	2677	O	LEU	A	361	-3.917	-4.150	12.063	1.00	0.00	A	O
ATOM	2678	N	ILE	A	362	-3.162	-2.072	12.440	1.00	0.00	A	N
ATOM	2679	CA	ILE	A	362	-2.869	-2.491	13.785	1.00	0.00	A	C
ATOM	2680	CB	ILE	A	362	-1.420	-2.828	14.079	1.00	0.00	A	C
ATOM	2681	CG2	ILE	A	362	-1.100	-4.086	13.259	1.00	0.00	A	C
ATOM	2682	CG1	ILE	A	362	-0.412	-1.694	13.850	1.00	0.00	A	C
ATOM	2683	CD1	ILE	A	362	0.958	-2.047	14.430	1.00	0.00	A	C
ATOM	2684	C	ILE	A	362	-3.494	-1.511	14.743	1.00	0.00	A	C
ATOM	2685	O	ILE	A	362	-2.897	-0.503	15.123	1.00	0.00	A	O
ATOM	2686	N	PRO	A	363	-4.606	-1.851	15.130	1.00	27.04	A	N
ATOM	2687	CA	PRO	A	363	-5.503	-1.142	16.058	1.00	28.00	A	C
ATOM	2688	C	PRO	A	363	-4.846	-0.620	17.336	1.00	29.53	A	C
ATOM	2689	O	PRO	A	363	-5.224	0.430	17.865	1.00	30.73	A	O
ATOM	2690	CB	PRO	A	363	-6.578	-2.178	16.335	1.00	27.28	A	C
ATOM	2691	CG	PRO	A	363	-6.678	-2.896	15.035	1.00	25.55	A	C
ATOM	2692	CD	PRO	A	363	-5.237	-3.098	14.652	1.00	25.27	A	C
ATOM	2693	N	THR	A	364	-3.879	-1.396	17.822	1.00	31.35	A	N
ATOM	2694	CA	THR	A	364	-3.078	-1.117	19.019	1.00	31.45	A	C
ATOM	2695	C	THR	A	364	-1.721	-1.478	18.450	1.00	34.70	A	C
ATOM	2696	O	THR	A	364	-1.319	-2.621	18.551	1.00	40.94	A	O

476/514

Figure 7

ATOM	2697	CB	THR	A	364	-3.458	-2.089	20.201	1.00	32.11	A	C
ATOM	2698	OG1	THR	A	364	-3.103	-3.441	19.878	1.00	29.88	A	O
ATOM	2699	CG2	THR	A	364	-4.965	-2.040	20.465	1.00	29.96	A	C
ATOM	2700	N	SER	A	365	-1.049	-0.529	17.799	1.00	34.44	A	N
ATOM	2701	CA	SER	A	365	0.239	-0.799	17.159	1.00	34.52	A	C
ATOM	2702	C	SER	A	365	0.923	-2.031	17.755	1.00	34.07	A	C
ATOM	2703	O	SER	A	365	0.534	-3.170	17.477	1.00	32.94	A	O
ATOM	2704	CB	SER	A	365	1.151	0.415	17.296	1.00	33.40	A	C
ATOM	2705	OG	SER	A	365	1.113	0.906	18.618	1.00	37.21	A	O
ATOM	2706	N	LEU	A	366	1.970	-1.797	18.534	1.00	34.33	A	N
ATOM	2707	CA	LEU	A	366	2.671	-2.868	19.203	1.00	33.89	A	C
ATOM	2708	C	LEU	A	366	2.736	-2.417	20.637	1.00	34.54	A	C
ATOM	2709	O	LEU	A	366	2.833	-1.221	20.910	1.00	35.89	A	O
ATOM	2710	CB	LEU	A	366	4.071	-3.061	18.634	1.00	32.18	A	C
ATOM	2711	CG	LEU	A	366	4.214	-4.294	17.738	1.00	31.05	A	C
ATOM	2712	CD1	LEU	A	366	3.328	-4.180	16.522	1.00	28.49	A	C
ATOM	2713	CD2	LEU	A	366	5.672	-4.435	17.335	1.00	31.02	A	C
ATOM	2714	N	PRO	A	367	2.690	-3.364	21.577	1.00	33.73	A	N
ATOM	2715	CA	PRO	A	367	2.737	-3.034	22.995	1.00	32.93	A	C
ATOM	2716	C	PRO	A	367	3.955	-2.209	23.349	1.00	33.46	A	C
ATOM	2717	O	PRO	A	367	5.067	-2.520	22.932	1.00	32.83	A	O
ATOM	2718	CB	PRO	A	367	2.768	-4.398	23.665	1.00	34.13	A	C
ATOM	2719	CG	PRO	A	367	2.126	-5.297	22.660	1.00	34.59	A	C
ATOM	2720	CD	PRO	A	367	2.732	-4.817	21.387	1.00	33.62	A	C
ATOM	2721	N	HIS	A	368	3.728	-1.110	23.998	1.00	0.00	A	N
ATOM	2722	CA	HIS	A	368	4.816	-0.351	24.546	1.00	0.00	A	C
ATOM	2723	ND1	HIS	A	368	4.390	2.999	22.662	1.00	0.00	A	N
ATOM	2724	CG	HIS	A	368	4.616	1.680	22.995	1.00	0.00	A	C
ATOM	2725	CB	HIS	A	368	4.641	1.175	24.411	1.00	0.00	A	C
ATOM	2726	NE2	HIS	A	368	4.681	1.906	20.748	1.00	0.00	A	N
ATOM	2727	CD2	HIS	A	368	4.792	1.026	21.812	1.00	0.00	A	C
ATOM	2728	CE1	HIS	A	368	4.440	3.076	21.308	1.00	0.00	A	C
ATOM	2729	C	HIS	A	368	4.897	-0.647	26.015	1.00	0.00	A	C
ATOM	2730	O	HIS	A	368	4.137	-1.454	26.537	1.00	0.00	A	O
ATOM	2731	N	ALA	A	369	5.866	-0.036	26.724	1.00	0.00	A	N
ATOM	2732	CA	ALA	A	369	5.969	-0.226	28.146	1.00	0.00	A	C
ATOM	2733	CB	ALA	A	369	6.769	-1.478	28.543	1.00	0.00	A	C
ATOM	2734	C	ALA	A	369	6.696	0.963	28.689	1.00	0.00	A	C
ATOM	2735	O	ALA	A	369	7.573	1.516	28.026	1.00	0.00	A	O
ATOM	2736	N	VAL	A	370	6.361	1.395	29.921	1.00	0.00	A	N
ATOM	2737	CA	VAL	A	370	7.019	2.557	30.444	1.00	0.00	A	C
ATOM	2738	CB	VAL	A	370	6.288	3.233	31.571	1.00	0.00	A	C
ATOM	2739	CG1	VAL	A	370	4.960	3.795	31.031	1.00	0.00	A	C
ATOM	2740	CG2	VAL	A	370	6.108	2.234	32.718	1.00	0.00	A	C
ATOM	2741	C	VAL	A	370	8.404	2.185	30.892	1.00	0.00	A	C
ATOM	2742	O	VAL	A	370	8.661	1.136	31.469	1.00	0.00	A	O
ATOM	2743	N	THR	A	371	9.350	3.073	30.578	1.00	0.00	A	N
ATOM	2744	CA	THR	A	371	10.757	3.022	30.784	1.00	0.00	A	C
ATOM	2745	CB	THR	A	371	11.425	4.160	30.054	1.00	0.00	A	C
ATOM	2746	OG1	THR	A	371	11.124	4.085	28.668	1.00	0.00	A	O
ATOM	2747	CG2	THR	A	371	12.946	4.112	30.255	1.00	0.00	A	C
ATOM	2748	C	THR	A	371	11.081	3.143	32.240	1.00	0.00	A	C
ATOM	2749	O	THR	A	371	12.058	2.566	32.714	1.00	0.00	A	O
ATOM	2750	N	CYS	A	372	10.287	3.933	32.983	1.00	0.00	A	N
ATOM	2751	CA	CYS	A	372	10.606	4.216	34.351	1.00	0.00	A	C
ATOM	2752	CB	CYS	A	372	11.464	5.500	34.392	1.00	0.00	A	C
ATOM	2753	SG	CYS	A	372	12.212	5.952	35.981	1.00	0.00	A	S
ATOM	2754	C	CYS	A	372	9.289	4.480	35.012	1.00	0.00	A	C
ATOM	2755	O	CYS	A	372	8.273	4.520	34.322	1.00	0.00	A	O
ATOM	2756	N	ASP	A	373	9.261	4.621	36.361	1.00	0.00	A	N
ATOM	2757	CA	ASP	A	373	8.062	4.975	37.070	1.00	0.00	A	C
ATOM	2758	CB	ASP	A	373	8.246	5.007	38.599	1.00	0.00	A	C
ATOM	2759	CG	ASP	A	373	8.480	3.587	39.101	1.00	0.00	A	C
ATOM	2760	OD1	ASP	A	373	7.519	2.775	39.058	1.00	0.00	A	O
ATOM	2761	OD2	ASP	A	373	9.623	3.300	39.549	1.00	0.00	A	O
ATOM	2762	C	ASP	A	373	7.738	6.375	36.635	1.00	0.00	A	C
ATOM	2763	O	ASP	A	373	8.517	7.296	36.860	1.00	0.00	A	O
ATOM	2764	N	VAL	A	374	6.583	6.560	35.966	1.00	0.00	A	N
ATOM	2765	CA	VAL	A	374	6.268	7.864	35.450	1.00	0.00	A	C
ATOM	2766	CB	VAL	A	374	6.310	7.871	33.933	1.00	0.00	A	C
ATOM	2767	CG1	VAL	A	374	5.973	9.252	33.338	1.00	0.00	A	C
ATOM	2768	CG2	VAL	A	374	7.708	7.397	33.513	1.00	0.00	A	C
ATOM	2769	C	VAL	A	374	4.894	8.218	35.938	1.00	0.00	A	C
ATOM	2770	O	VAL	A	374	4.104	7.327	36.217	1.00	0.00	A	O
ATOM	2771	N	LYS	A	375	4.586	9.525	36.109	1.00	0.00	A	N

477/514

Figure 7

ATOM	2772	CA	LYS A 375	3.278	9.991	36.499	1.00	0.00	A	C
ATOM	2773	CB	LYS A 375	3.328	11.207	37.444	1.00	0.00	A	C
ATOM	2774	CG	LYS A 375	3.502	10.910	38.932	1.00	0.00	A	C
ATOM	2775	CD	LYS A 375	2.240	10.352	39.589	1.00	0.00	A	C
ATOM	2776	CE	LYS A 375	2.371	10.136	41.099	1.00	0.00	A	C
ATOM	2777	NZ	LYS A 375	1.069	9.715	41.663	1.00	0.00	A	N
ATOM	2778	C	LYS A 375	2.632	10.528	35.262	1.00	0.00	A	C
ATOM	2779	O	LYS A 375	3.068	11.546	34.725	1.00	0.00	A	O
ATOM	2780	N	PHE A 376	1.555	9.877	34.781	1.00	0.00	A	N
ATOM	2781	CA	PHE A 376	0.942	10.310	33.559	1.00	0.00	A	C
ATOM	2782	CB	PHE A 376	0.951	9.159	32.535	1.00	0.00	A	C
ATOM	2783	CG	PHE A 376	0.320	9.544	31.246	1.00	0.00	A	C
ATOM	2784	CD1	PHE A 376	0.998	10.334	30.342	1.00	0.00	A	C
ATOM	2785	CD2	PHE A 376	-0.933	9.084	30.926	1.00	0.00	A	C
ATOM	2786	CE1	PHE A 376	0.413	10.675	29.147	1.00	0.00	A	C
ATOM	2787	CE2	PHE A 376	-1.522	9.421	29.730	1.00	0.00	A	C
ATOM	2788	CZ	PHE A 376	-0.848	10.220	28.840	1.00	0.00	A	C
ATOM	2789	C	PHE A 376	-0.470	10.669	33.858	1.00	0.00	A	C
ATOM	2790	O	PHE A 376	-1.236	9.808	34.275	1.00	0.00	A	O
ATOM	2791	N	ARG A 377	-0.844	11.956	33.644	1.00	0.00	A	N
ATOM	2792	CA	ARG A 377	-2.166	12.486	33.888	1.00	0.00	A	C
ATOM	2793	CB	ARG A 377	-3.242	11.774	33.046	1.00	0.00	A	C
ATOM	2794	CG	ARG A 377	-2.906	11.765	31.554	1.00	0.00	A	C
ATOM	2795	CD	ARG A 377	-3.332	13.014	30.784	1.00	0.00	A	C
ATOM	2796	NE	ARG A 377	-4.782	12.877	30.477	1.00	0.00	A	N
ATOM	2797	CZ	ARG A 377	-5.289	13.477	29.363	1.00	0.00	A	C
ATOM	2798	NH1	ARG A 377	-4.470	14.205	28.548	1.00	0.00	A	N
ATOM	2799	NH2	ARG A 377	-6.614	13.346	29.055	1.00	0.00	A	N
ATOM	2800	C	ARG A 377	-2.524	12.324	35.353	1.00	0.00	A	C
ATOM	2801	O	ARG A 377	-3.695	12.158	35.696	1.00	0.00	A	O
ATOM	2802	N	ASN A 378	-1.506	12.380	36.246	1.00	0.00	A	N
ATOM	2803	CA	ASN A 378	-1.587	12.221	37.679	1.00	0.00	A	C
ATOM	2804	CB	ASN A 378	-2.570	13.219	38.329	1.00	0.00	A	C
ATOM	2805	CG	ASN A 378	-2.181	13.468	39.788	1.00	0.00	A	C
ATOM	2806	OD1	ASN A 378	-2.899	14.149	40.517	1.00	0.00	A	O
ATOM	2807	ND2	ASN A 378	-1.017	12.910	40.223	1.00	0.00	A	N
ATOM	2808	C	ASN A 378	-1.981	10.799	38.037	1.00	0.00	A	C
ATOM	2809	O	ASN A 378	-2.533	10.528	39.103	1.00	0.00	A	O
ATOM	2810	N	TYR A 379	-1.764	9.849	37.116	1.00	0.00	A	N
ATOM	2811	CA	TYR A 379	-2.030	8.454	37.328	1.00	0.00	A	C
ATOM	2812	CB	TYR A 379	-2.606	7.717	36.115	1.00	0.00	A	C
ATOM	2813	CG	TYR A 379	-4.020	8.178	36.130	1.00	0.00	A	C
ATOM	2814	CD1	TYR A 379	-4.861	7.705	37.113	1.00	0.00	A	C
ATOM	2815	CD2	TYR A 379	-4.500	9.105	35.235	1.00	0.00	A	C
ATOM	2816	CE1	TYR A 379	-6.169	8.115	37.179	1.00	0.00	A	C
ATOM	2817	CE2	TYR A 379	-5.812	9.516	35.296	1.00	0.00	A	C
ATOM	2818	CZ	TYR A 379	-6.648	9.019	36.267	1.00	0.00	A	C
ATOM	2819	OH	TYR A 379	-7.994	9.441	36.331	1.00	0.00	A	O
ATOM	2820	C	TYR A 379	-0.952	7.638	37.983	1.00	0.00	A	C
ATOM	2821	O	TYR A 379	-1.287	6.745	38.760	1.00	0.00	A	O
ATOM	2822	N	LEU A 380	0.348	7.930	37.724	1.00	0.00	A	N
ATOM	2823	CA	LEU A 380	1.450	7.128	38.217	1.00	0.00	A	C
ATOM	2824	CB	LEU A 380	1.573	7.153	39.750	1.00	0.00	A	C
ATOM	2825	CG	LEU A 380	2.702	6.259	40.290	1.00	0.00	A	C
ATOM	2826	CD2	LEU A 380	2.666	6.186	41.824	1.00	0.00	A	C
ATOM	2827	CD1	LEU A 380	4.070	6.687	39.738	1.00	0.00	A	C
ATOM	2828	C	LEU A 380	1.398	5.673	37.812	1.00	0.00	A	C
ATOM	2829	O	LEU A 380	0.743	4.837	38.435	1.00	0.00	A	O
ATOM	2830	N	ILE A 381	2.077	5.346	36.692	1.00	0.00	A	N
ATOM	2831	CA	ILE A 381	2.128	3.998	36.235	1.00	0.00	A	C
ATOM	2832	CB	ILE A 381	1.722	3.907	34.798	1.00	0.00	A	C
ATOM	2833	CG2	ILE A 381	0.977	2.573	34.664	1.00	0.00	A	C
ATOM	2834	CG1	ILE A 381	0.708	5.016	34.470	1.00	0.00	A	C
ATOM	2835	CD1	ILE A 381	0.499	5.218	32.970	1.00	0.00	A	C
ATOM	2836	C	ILE A 381	3.557	3.557	36.421	1.00	0.00	A	C
ATOM	2837	O	ILE A 381	4.502	4.194	35.949	1.00	0.00	A	O
ATOM	2838	N	PRO A 382	3.701	2.479	37.152	1.00	0.00	A	N
ATOM	2839	CA	PRO A 382	4.963	1.900	37.543	1.00	0.00	A	C
ATOM	2840	CD	PRO A 382	2.575	1.616	37.472	1.00	0.00	A	C
ATOM	2841	CB	PRO A 382	4.602	0.723	38.447	1.00	0.00	A	C
ATOM	2842	CG	PRO A 382	3.207	0.300	37.947	1.00	0.00	A	C
ATOM	2843	C	PRO A 382	5.742	1.445	36.359	1.00	0.00	A	C
ATOM	2844	O	PRO A 382	5.132	1.075	35.357	1.00	0.00	A	O
ATOM	2845	N	LYS A 383	7.084	1.466	36.486	1.00	0.00	A	N
ATOM	2846	CA	LYS A 383	8.019	1.120	35.455	1.00	0.00	A	C

478/514

Figure 7

ATOM	2847	CB	LYS	A	383	9.483	1.215	35.915	1.00	0.00	A	C
ATOM	2848	CG	LYS	A	383	10.477	0.697	34.875	1.00	0.00	A	C
ATOM	2849	CD	LYS	A	383	11.941	0.896	35.268	1.00	0.00	A	C
ATOM	2850	CE	LYS	A	383	12.917	0.143	34.362	1.00	0.00	A	C
ATOM	2851	NZ	LYS	A	383	12.696	-1.316	34.484	1.00	0.00	A	N
ATOM	2852	C	LYS	A	383	7.814	-0.296	35.026	1.00	0.00	A	C
ATOM	2853	O	LYS	A	383	7.668	-1.204	35.841	1.00	0.00	A	O
ATOM	2854	N	GLY	A	384	7.791	-0.489	33.698	1.00	0.00	A	N
ATOM	2855	CA	GLY	A	384	7.705	-1.776	33.087	1.00	0.00	A	C
ATOM	2856	C	GLY	A	384	6.293	-2.128	32.772	1.00	0.00	A	C
ATOM	2857	O	GLY	A	384	6.069	-3.169	32.155	1.00	0.00	A	O
ATOM	2858	N	THR	A	385	5.321	-1.272	33.167	1.00	0.00	A	N
ATOM	2859	CA	THR	A	385	3.924	-1.532	32.945	1.00	0.00	A	C
ATOM	2860	CB	THR	A	385	3.050	-0.553	33.680	1.00	0.00	A	C
ATOM	2861	OG1	THR	A	385	1.705	-0.991	33.687	1.00	0.00	A	O
ATOM	2862	CG2	THR	A	385	3.166	0.833	33.035	1.00	0.00	A	C
ATOM	2863	C	THR	A	385	3.653	-1.506	31.463	1.00	0.00	A	C
ATOM	2864	O	THR	A	385	4.246	-0.738	30.711	1.00	0.00	A	O
ATOM	2865	N	THR	A	386	2.797	-2.419	30.974	1.00	0.00	A	N
ATOM	2866	CA	THR	A	386	2.640	-2.460	29.552	1.00	0.00	A	C
ATOM	2867	CB	THR	A	386	2.342	-3.850	29.063	1.00	0.00	A	C
ATOM	2868	OG1	THR	A	386	3.230	-4.771	29.681	1.00	0.00	A	O
ATOM	2869	CG2	THR	A	386	2.643	-3.905	27.558	1.00	0.00	A	C
ATOM	2870	C	THR	A	386	1.555	-1.482	29.154	1.00	0.00	A	C
ATOM	2871	O	THR	A	386	0.552	-1.338	29.852	1.00	0.00	A	O
ATOM	2872	N	ILE	A	387	1.750	-0.774	28.016	1.00	0.00	A	N
ATOM	2873	CA	ILE	A	387	0.857	0.249	27.512	1.00	0.00	A	C
ATOM	2874	CB	ILE	A	387	1.523	1.613	27.363	1.00	0.00	A	C
ATOM	2875	CG2	ILE	A	387	0.694	2.513	26.432	1.00	0.00	A	C
ATOM	2876	CG1	ILE	A	387	1.770	2.296	28.716	1.00	0.00	A	C
ATOM	2877	CD1	ILE	A	387	2.903	1.722	29.542	1.00	0.00	A	C
ATOM	2878	C	ILE	A	387	0.341	-0.126	26.142	1.00	0.00	A	C
ATOM	2879	O	ILE	A	387	1.116	-0.479	25.254	1.00	0.00	A	O
ATOM	2880	N	LEU	A	388	-1.001	-0.063	25.937	1.00	0.00	A	N
ATOM	2881	CA	LEU	A	388	-1.587	-0.273	24.635	1.00	0.00	A	C
ATOM	2882	CB	LEU	A	388	-2.923	-1.051	24.594	1.00	0.00	A	C
ATOM	2883	CG	LEU	A	388	-2.868	-2.574	24.778	1.00	0.00	A	C
ATOM	2884	CD2	LEU	A	388	-1.808	-3.212	23.866	1.00	0.00	A	C
ATOM	2885	CD1	LEU	A	388	-4.261	-3.206	24.620	1.00	0.00	A	C
ATOM	2886	C	LEU	A	388	-1.977	1.067	24.065	1.00	0.00	A	C
ATOM	2887	O	LEU	A	388	-2.814	1.772	24.633	1.00	0.00	A	O
ATOM	2888	N	THR	A	389	-1.420	1.444	22.894	1.00	0.00	A	N
ATOM	2889	CA	THR	A	389	-1.799	2.703	22.303	1.00	0.00	A	C
ATOM	2890	CB	THR	A	389	-0.649	3.445	21.653	1.00	0.00	A	C
ATOM	2891	OG1	THR	A	389	-1.109	4.664	21.091	1.00	0.00	A	O
ATOM	2892	CG2	THR	A	389	0.055	2.576	20.592	1.00	0.00	A	C
ATOM	2893	C	THR	A	389	-2.895	2.425	21.312	1.00	0.00	A	C
ATOM	2894	O	THR	A	389	-2.794	1.532	20.478	1.00	0.00	A	O
ATOM	2895	N	SER	A	390	-4.023	3.167	21.396	1.00	0.00	A	N
ATOM	2896	CA	SER	A	390	-5.057	2.833	20.460	1.00	0.00	A	C
ATOM	2897	CB	SER	A	390	-6.503	2.882	21.024	1.00	0.00	A	C
ATOM	2898	OG	SER	A	390	-6.867	4.177	21.477	1.00	0.00	A	O
ATOM	2899	C	SER	A	390	-4.924	3.697	19.242	1.00	0.00	A	C
ATOM	2900	O	SER	A	390	-5.303	4.864	19.206	1.00	0.00	A	O
ATOM	2901	N	LEU	A	391	-4.364	3.102	18.177	1.00	0.00	A	N
ATOM	2902	CA	LEU	A	391	-4.166	3.769	16.925	1.00	0.00	A	C
ATOM	2903	CB	LEU	A	391	-3.336	2.937	15.934	1.00	0.00	A	C
ATOM	2904	CG	LEU	A	391	-1.896	2.706	16.425	1.00	0.00	A	C
ATOM	2905	CD2	LEU	A	391	-1.280	4.009	16.961	1.00	0.00	A	C
ATOM	2906	CD1	LEU	A	391	-1.031	2.032	15.348	1.00	0.00	A	C
ATOM	2907	C	LEU	A	391	-5.494	4.079	16.293	1.00	0.00	A	C
ATOM	2908	O	LEU	A	391	-5.631	5.124	15.663	1.00	0.00	A	O
ATOM	2909	N	THR	A	392	-6.496	3.192	16.494	1.00	0.00	A	N
ATOM	2910	CA	THR	A	392	-7.826	3.235	15.924	1.00	0.00	A	C
ATOM	2911	CB	THR	A	392	-8.700	2.152	16.482	1.00	0.00	A	C
ATOM	2912	OG1	THR	A	392	-8.077	0.894	16.310	1.00	0.00	A	O
ATOM	2913	CG2	THR	A	392	-10.055	2.162	15.751	1.00	0.00	A	C
ATOM	2914	C	THR	A	392	-8.507	4.499	16.319	1.00	0.00	A	C
ATOM	2915	O	THR	A	392	-9.233	5.091	15.527	1.00	0.00	A	O
ATOM	2916	N	SER	A	393	-8.303	4.937	17.565	1.00	0.00	A	N
ATOM	2917	CA	SER	A	393	-8.980	6.113	18.004	1.00	0.00	A	C
ATOM	2918	CB	SER	A	393	-8.947	6.233	19.510	1.00	0.00	A	C
ATOM	2919	OG	SER	A	393	-9.292	4.980	20.074	1.00	0.00	A	O
ATOM	2920	C	SER	A	393	-8.374	7.332	17.372	1.00	0.00	A	C
ATOM	2921	O	SER	A	393	-9.017	8.377	17.291	1.00	0.00	A	O

Figure 7

ATOM	2922	N	VAL A 394	-7.093	7.265	16.971	1.00	0.00	A	N
ATOM	2923	CA	VAL A 394	-6.530	8.394	16.289	1.00	0.00	A	C
ATOM	2924	CB	VAL A 394	-5.033	8.405	16.314	1.00	0.00	A	C
ATOM	2925	CG1	VAL A 394	-4.581	9.653	15.545	1.00	0.00	A	C
ATOM	2926	CG2	VAL A 394	-4.549	8.355	17.771	1.00	0.00	A	C
ATOM	2927	C	VAL A 394	-6.971	8.434	14.839	1.00	0.00	A	C
ATOM	2928	O	VAL A 394	-7.399	9.477	14.353	1.00	0.00	A	O
ATOM	2929	N	LEU A 395	-6.881	7.291	14.117	1.00	0.00	A	N
ATOM	2930	CA	LEU A 395	-7.191	7.227	12.706	1.00	0.00	A	C
ATOM	2931	CB	LEU A 395	-6.866	5.900	11.986	1.00	0.00	A	C
ATOM	2932	CG	LEU A 395	-5.378	5.645	11.648	1.00	0.00	A	C
ATOM	2933	CD2	LEU A 395	-4.540	5.143	12.829	1.00	0.00	A	C
ATOM	2934	CD1	LEU A 395	-4.785	6.858	10.920	1.00	0.00	A	C
ATOM	2935	C	LEU A 395	-8.645	7.459	12.440	1.00	0.00	A	C
ATOM	2936	O	LEU A 395	-9.034	7.902	11.364	1.00	0.00	A	O
ATOM	2937	N	HIS A 396	-9.484	7.000	13.368	1.00	0.00	A	N
ATOM	2938	CA	HIS A 396	-10.919	7.062	13.326	1.00	0.00	A	C
ATOM	2939	ND1	HIS A 396	-12.493	3.635	12.840	1.00	0.00	A	N
ATOM	2940	CG	HIS A 396	-11.648	4.721	12.820	1.00	0.00	A	C
ATOM	2941	CB	HIS A 396	-11.659	5.817	13.841	1.00	0.00	A	C
ATOM	2942	NE2	HIS A 396	-11.192	3.400	11.050	1.00	0.00	A	N
ATOM	2943	CD2	HIS A 396	-10.858	4.563	11.721	1.00	0.00	A	C
ATOM	2944	CE1	HIS A 396	-12.177	2.876	11.760	1.00	0.00	A	C
ATOM	2945	C	HIS A 396	-11.546	8.262	13.941	1.00	0.00	A	C
ATOM	2946	O	HIS A 396	-12.769	8.207	14.079	1.00	0.00	A	O
ATOM	2947	N	ASP A 397	-10.756	9.248	14.446	1.00	0.00	A	N
ATOM	2948	CA	ASP A 397	-11.195	10.455	15.128	1.00	0.00	A	C
ATOM	2949	CB	ASP A 397	-10.029	11.456	15.303	1.00	0.00	A	C
ATOM	2950	CG	ASP A 397	-10.378	12.557	16.302	1.00	0.00	A	C
ATOM	2951	OD1	ASP A 397	-11.212	13.443	15.975	1.00	0.00	A	O
ATOM	2952	OD2	ASP A 397	-9.801	12.518	17.420	1.00	0.00	A	O
ATOM	2953	C	ASP A 397	-12.299	11.126	14.336	1.00	0.00	A	C
ATOM	2954	O	ASP A 397	-12.142	11.473	13.169	1.00	0.00	A	O
ATOM	2955	N	ASN A 398	-13.475	11.249	14.989	1.00	0.00	A	N
ATOM	2956	CA	ASN A 398	-14.706	11.708	14.403	1.00	0.00	A	C
ATOM	2957	CB	ASN A 398	-15.897	11.648	15.373	1.00	0.00	A	C
ATOM	2958	CG	ASN A 398	-16.294	10.189	15.582	1.00	0.00	A	C
ATOM	2959	OD1	ASN A 398	-15.476	9.316	15.860	1.00	0.00	A	O
ATOM	2960	ND2	ASN A 398	-17.621	9.919	15.447	1.00	0.00	A	N
ATOM	2961	C	ASN A 398	-14.588	13.117	13.935	1.00	0.00	A	C
ATOM	2962	O	ASN A 398	-15.137	13.461	12.888	1.00	0.00	A	O
ATOM	2963	N	LYS A 399	-13.913	13.974	14.719	1.00	0.00	A	N
ATOM	2964	CA	LYS A 399	-13.793	15.353	14.350	1.00	0.00	A	C
ATOM	2965	CB	LYS A 399	-13.171	16.225	15.446	1.00	0.00	A	C
ATOM	2966	CG	LYS A 399	-13.018	17.681	15.005	1.00	0.00	A	C
ATOM	2967	CD	LYS A 399	-12.704	18.636	16.155	1.00	0.00	A	C
ATOM	2968	CE	LYS A 399	-11.867	19.848	15.734	1.00	0.00	A	C
ATOM	2969	NZ	LYS A 399	-12.548	20.617	14.663	1.00	0.00	A	N
ATOM	2970	C	LYS A 399	-12.946	15.551	13.127	1.00	0.00	A	C
ATOM	2971	O	LYS A 399	-13.371	16.224	12.190	1.00	0.00	A	O
ATOM	2972	N	GLU A 400	-11.731	14.965	13.115	1.00	0.00	A	N
ATOM	2973	CA	GLU A 400	-10.800	15.164	12.041	1.00	0.00	A	C
ATOM	2974	CB	GLU A 400	-9.399	14.608	12.340	1.00	0.00	A	C
ATOM	2975	CG	GLU A 400	-8.318	15.127	11.382	1.00	0.00	A	C
ATOM	2976	CD	GLU A 400	-7.962	16.545	11.797	1.00	0.00	A	C
ATOM	2977	OE1	GLU A 400	-8.481	16.998	12.851	1.00	0.00	A	O
ATOM	2978	OE2	GLU A 400	-7.156	17.186	11.068	1.00	0.00	A	O
ATOM	2979	C	GLU A 400	-11.281	14.514	10.782	1.00	0.00	A	C
ATOM	2980	O	GLU A 400	-11.074	15.049	9.693	1.00	0.00	A	O
ATOM	2981	N	PHE A 401	-11.894	13.320	10.892	1.00	0.00	A	N
ATOM	2982	CA	PHE A 401	-12.390	12.650	9.728	1.00	0.00	A	C
ATOM	2983	CB	PHE A 401	-11.710	11.287	9.515	1.00	0.00	A	C
ATOM	2984	CG	PHE A 401	-10.226	11.498	9.414	1.00	0.00	A	C
ATOM	2985	CD1	PHE A 401	-9.634	11.775	8.203	1.00	0.00	A	C
ATOM	2986	CD2	PHE A 401	-9.412	11.413	10.527	1.00	0.00	A	C
ATOM	2987	CE1	PHE A 401	-8.273	11.967	8.095	1.00	0.00	A	C
ATOM	2988	CE2	PHE A 401	-8.050	11.605	10.427	1.00	0.00	A	C
ATOM	2989	CZ	PHE A 401	-7.476	11.878	9.210	1.00	0.00	A	C
ATOM	2990	C	PHE A 401	-13.843	12.405	10.004	1.00	0.00	A	C
ATOM	2991	O	PHE A 401	-14.184	11.523	10.792	1.00	0.00	A	O
ATOM	2992	N	PRO A 402	-14.681	13.144	9.311	1.00	0.00	A	N
ATOM	2993	CA	PRO A 402	-16.106	13.182	9.550	1.00	0.00	A	C
ATOM	2994	CD	PRO A 402	-14.211	14.347	8.643	1.00	0.00	A	C
ATOM	2995	CB	PRO A 402	-16.646	14.272	8.631	1.00	0.00	A	C
ATOM	2996	CG	PRO A 402	-15.458	15.240	8.475	1.00	0.00	A	C

Figure 7

ATOM	2997	C	PRO	A	402	-16.869	11.901	9.469	1.00	0.00	A	C
ATOM	2998	O	PRO	A	402	-17.694	11.655	10.347	1.00	0.00	A	O
ATOM	2999	N	ASN	A	403	-16.626	11.059	8.454	1.00	0.00	A	N
ATOM	3000	CA	ASN	A	403	-17.347	9.827	8.466	1.00	0.00	A	C
ATOM	3001	CB	ASN	A	403	-18.193	9.661	7.194	1.00	0.00	A	C
ATOM	3002	CG	ASN	A	403	-19.212	10.798	7.124	1.00	0.00	A	C
ATOM	3003	OD1	ASN	A	403	-18.902	11.917	6.716	1.00	0.00	A	O
ATOM	3004	ND2	ASN	A	403	-20.477	10.506	7.532	1.00	0.00	A	N
ATOM	3005	C	ASN	A	403	-16.279	8.780	8.451	1.00	0.00	A	C
ATOM	3006	O	ASN	A	403	-16.064	8.133	7.427	1.00	0.00	A	O
ATOM	3007	N	PRO	A	404	-15.669	8.592	9.607	1.00	0.00	A	N
ATOM	3008	CA	PRO	A	404	-14.493	7.774	9.805	1.00	0.00	A	C
ATOM	3009	CD	PRO	A	404	-16.340	8.878	10.865	1.00	0.00	A	C
ATOM	3010	CB	PRO	A	404	-14.173	7.896	11.288	1.00	0.00	A	C
ATOM	3011	CG	PRO	A	404	-15.546	8.118	11.937	1.00	0.00	A	C
ATOM	3012	C	PRO	A	404	-14.662	6.337	9.414	1.00	0.00	A	C
ATOM	3013	O	PRO	A	404	-13.672	5.670	9.136	1.00	0.00	A	O
ATOM	3014	N	GLU	A	405	-15.887	5.806	9.448	1.00	0.00	A	N
ATOM	3015	CA	GLU	A	405	-16.054	4.438	9.076	1.00	0.00	A	C
ATOM	3016	CB	GLU	A	405	-17.159	3.736	9.853	1.00	0.00	A	C
ATOM	3017	CG	GLU	A	405	-16.615	3.657	11.281	1.00	0.00	A	C
ATOM	3018	CD	GLU	A	405	-17.509	2.860	12.188	1.00	0.00	A	C
ATOM	3019	OE1	GLU	A	405	-17.873	1.708	11.835	1.00	0.00	A	O
ATOM	3020	OE2	GLU	A	405	-17.813	3.407	13.281	1.00	0.00	A	O
ATOM	3021	C	GLU	A	405	-16.098	4.222	7.596	1.00	0.00	A	C
ATOM	3022	O	GLU	A	405	-15.953	3.087	7.146	1.00	0.00	A	O
ATOM	3023	N	MET	A	406	-16.361	5.273	6.794	1.00	0.00	A	N
ATOM	3024	CA	MET	A	406	-16.422	5.059	5.377	1.00	0.00	A	C
ATOM	3025	CB	MET	A	406	-17.637	5.696	4.686	1.00	0.00	A	C
ATOM	3026	CG	MET	A	406	-18.206	6.919	5.405	1.00	0.00	A	C
ATOM	3027	SD	MET	A	406	-19.405	6.511	6.713	1.00	0.00	A	S
ATOM	3028	CE	MET	A	406	-20.758	6.112	5.568	1.00	0.00	A	C
ATOM	3029	C	MET	A	406	-15.150	5.474	4.704	1.00	0.00	A	C
ATOM	3030	O	MET	A	406	-14.331	6.184	5.284	1.00	0.00	A	O
ATOM	3031	N	PHE	A	407	-14.942	4.943	3.471	1.00	0.00	A	N
ATOM	3032	CA	PHE	A	407	-13.727	5.106	2.713	1.00	0.00	A	C
ATOM	3033	CB	PHE	A	407	-13.819	4.272	1.421	1.00	0.00	A	C
ATOM	3034	CG	PHE	A	407	-12.578	4.440	0.627	1.00	0.00	A	C
ATOM	3035	CD1	PHE	A	407	-11.327	4.334	1.211	1.00	0.00	A	C
ATOM	3036	CD2	PHE	A	407	-12.677	4.630	-0.733	1.00	0.00	A	C
ATOM	3037	CE1	PHE	A	407	-10.195	4.490	0.449	1.00	0.00	A	C
ATOM	3038	CE2	PHE	A	407	-11.542	4.778	-1.501	1.00	0.00	A	C
ATOM	3039	CZ	PHE	A	407	-10.301	4.715	-0.904	1.00	0.00	A	C
ATOM	3040	C	PHE	A	407	-13.365	6.560	2.437	1.00	0.00	A	C
ATOM	3041	O	PHE	A	407	-12.630	7.120	3.238	1.00	0.00	A	O
ATOM	3042	N	ASP	A	408	-13.954	7.244	1.427	1.00	0.00	A	N
ATOM	3043	CA	ASP	A	408	-13.731	8.649	1.087	1.00	0.00	A	C
ATOM	3044	CB	ASP	A	408	-14.618	9.570	1.953	1.00	0.00	A	C
ATOM	3045	CG	ASP	A	408	-14.710	10.959	1.333	1.00	0.00	A	C
ATOM	3046	OD1	ASP	A	408	-14.473	11.104	0.102	1.00	0.00	A	O
ATOM	3047	OD2	ASP	A	408	-15.055	11.897	2.100	1.00	0.00	A	O
ATOM	3048	C	ASP	A	408	-12.306	9.227	1.105	1.00	0.00	A	C
ATOM	3049	O	ASP	A	408	-11.814	9.607	2.163	1.00	0.00	A	O
ATOM	3050	N	PRO	A	409	-11.635	9.361	-0.041	1.00	0.00	A	N
ATOM	3051	CA	PRO	A	409	-10.317	9.969	-0.173	1.00	0.00	A	C
ATOM	3052	CD	PRO	A	409	-11.986	8.580	-1.215	1.00	0.00	A	C
ATOM	3053	CB	PRO	A	409	-9.913	9.789	-1.635	1.00	0.00	A	C
ATOM	3054	CG	PRO	A	409	-10.712	8.553	-2.087	1.00	0.00	A	C
ATOM	3055	C	PRO	A	409	-10.283	11.415	0.217	1.00	0.00	A	C
ATOM	3056	O	PRO	A	409	-9.207	11.929	0.530	1.00	0.00	A	O
ATOM	3057	N	ARG	A	410	-11.450	12.084	0.258	1.00	0.00	A	N
ATOM	3058	CA	ARG	A	410	-11.623	13.479	0.539	1.00	0.00	A	C
ATOM	3059	CB	ARG	A	410	-13.070	13.943	0.377	1.00	0.00	A	C
ATOM	3060	CG	ARG	A	410	-13.527	13.836	-1.081	1.00	0.00	A	C
ATOM	3061	CD	ARG	A	410	-14.909	14.426	-1.364	1.00	0.00	A	C
ATOM	3062	NE	ARG	A	410	-14.726	15.839	-1.790	1.00	0.00	A	N
ATOM	3063	CZ	ARG	A	410	-15.556	16.355	-2.741	1.00	0.00	A	C
ATOM	3064	NH1	ARG	A	410	-16.514	15.562	-3.304	1.00	0.00	A	N
ATOM	3065	NH2	ARG	A	410	-15.429	17.659	-3.121	1.00	0.00	A	N
ATOM	3066	C	ARG	A	410	-11.133	13.853	1.905	1.00	0.00	A	C
ATOM	3067	O	ARG	A	410	-10.923	15.044	2.131	1.00	0.00	A	O
ATOM	3068	N	HIS	A	411	-10.965	12.887	2.848	1.00	0.00	A	N
ATOM	3069	CA	HIS	A	411	-10.436	13.129	4.166	1.00	0.00	A	C
ATOM	3070	ND1	HIS	A	411	-12.067	10.014	5.576	1.00	0.00	A	N
ATOM	3071	CG	HIS	A	411	-11.744	11.343	5.396	1.00	0.00	A	C

Figure 7

ATOM	3072	CB	HIS	A	411	-10.385	11.859	5.026	1.00	0.00	A	C
ATOM	3073	NE2	HIS	A	411	-13.924	11.176	5.946	1.00	0.00	A	N
ATOM	3074	CD2	HIS	A	411	-12.887	12.034	5.627	1.00	0.00	A	C
ATOM	3075	CE1	HIS	A	411	-13.386	9.975	5.902	1.00	0.00	A	C
ATOM	3076	C	HIS	A	411	-9.040	13.689	4.048	1.00	0.00	A	C
ATOM	3077	O	HIS	A	411	-8.598	14.442	4.911	1.00	0.00	A	O
ATOM	3078	N	PHE	A	412	-8.295	13.264	3.017	1.00	0.00	A	N
ATOM	3079	CA	PHE	A	412	-7.018	13.750	2.595	1.00	0.00	A	C
ATOM	3080	CB	PHE	A	412	-6.014	12.661	2.178	1.00	0.00	A	C
ATOM	3081	CG	PHE	A	412	-5.569	12.073	3.476	1.00	0.00	A	C
ATOM	3082	CD1	PHE	A	412	-4.540	12.650	4.191	1.00	0.00	A	C
ATOM	3083	CD2	PHE	A	412	-6.194	10.969	4.000	1.00	0.00	A	C
ATOM	3084	CE1	PHE	A	412	-4.129	12.120	5.394	1.00	0.00	A	C
ATOM	3085	CE2	PHE	A	412	-5.793	10.429	5.202	1.00	0.00	A	C
ATOM	3086	CZ	PHE	A	412	-4.761	11.010	5.901	1.00	0.00	A	C
ATOM	3087	C	PHE	A	412	-7.064	14.886	1.597	1.00	0.00	A	C
ATOM	3088	O	PHE	A	412	-5.996	15.273	1.149	1.00	0.00	A	O
ATOM	3089	N	LEU	A	413	-8.222	15.347	1.061	1.00	0.00	A	N
ATOM	3090	CA	LEU	A	413	-8.133	16.454	0.121	1.00	0.00	A	C
ATOM	3091	CB	LEU	A	413	-8.878	16.304	-1.230	1.00	0.00	A	C
ATOM	3092	CG	LEU	A	413	-8.552	15.098	-2.153	1.00	0.00	A	C
ATOM	3093	CD2	LEU	A	413	-9.364	13.849	-1.805	1.00	0.00	A	C
ATOM	3094	CD1	LEU	A	413	-7.045	14.856	-2.325	1.00	0.00	A	C
ATOM	3095	C	LEU	A	413	-8.699	17.721	0.736	1.00	0.00	A	C
ATOM	3096	O	LEU	A	413	-9.417	17.689	1.738	1.00	0.00	A	O
ATOM	3097	N	HIS	A	414	-8.366	18.882	0.117	1.00	0.00	A	N
ATOM	3098	CA	HIS	A	414	-8.758	20.207	0.543	1.00	0.00	A	C
ATOM	3099	ND1	HIS	A	414	-7.214	22.456	2.597	1.00	0.00	A	N
ATOM	3100	CG	HIS	A	414	-7.595	22.415	1.279	1.00	0.00	A	C
ATOM	3101	CB	HIS	A	414	-7.553	21.172	0.428	1.00	0.00	A	C
ATOM	3102	NE2	HIS	A	414	-7.793	24.528	2.041	1.00	0.00	A	N
ATOM	3103	CD2	HIS	A	414	-7.949	23.690	0.953	1.00	0.00	A	C
ATOM	3104	CE1	HIS	A	414	-7.349	23.744	3.004	1.00	0.00	A	C
ATOM	3105	C	HIS	A	414	-9.879	20.623	-0.383	1.00	0.00	A	C
ATOM	3106	O	HIS	A	414	-10.488	19.763	-1.017	1.00	0.00	A	O
ATOM	3107	N	GLU	A	415	-10.203	21.937	-0.451	1.00	0.00	A	N
ATOM	3108	CA	GLU	A	415	-11.250	22.500	-1.262	1.00	0.00	A	C
ATOM	3109	CB	GLU	A	415	-11.385	24.013	-1.080	1.00	0.00	A	C
ATOM	3110	CG	GLU	A	415	-12.515	24.600	-1.917	1.00	0.00	A	C
ATOM	3111	CD	GLU	A	415	-12.553	26.095	-1.683	1.00	0.00	A	C
ATOM	3112	OE1	GLU	A	415	-11.678	26.612	-0.939	1.00	0.00	A	O
ATOM	3113	OE2	GLU	A	415	-13.466	26.745	-2.253	1.00	0.00	A	O
ATOM	3114	C	GLU	A	415	-10.910	22.257	-2.700	1.00	0.00	A	C
ATOM	3115	O	GLU	A	415	-11.773	21.933	-3.518	1.00	0.00	A	O
ATOM	3116	N	GLY	A	416	-9.606	22.384	-3.033	1.00	0.00	A	N
ATOM	3117	CA	GLY	A	416	-9.131	22.105	-4.357	1.00	0.00	A	C
ATOM	3118	C	GLY	A	416	-8.723	20.659	-4.335	1.00	0.00	A	C
ATOM	3119	O	GLY	A	416	-9.241	19.878	-3.537	1.00	0.00	A	O
ATOM	3120	N	GLY	A	417	-7.820	20.242	-5.248	1.00	0.00	A	N
ATOM	3121	CA	GLY	A	417	-7.381	18.867	-5.252	1.00	0.00	A	C
ATOM	3122	C	GLY	A	417	-6.564	18.587	-4.035	1.00	0.00	A	C
ATOM	3123	O	GLY	A	417	-6.978	17.762	-3.226	1.00	0.00	A	O
ATOM	3124	N	ASN	A	418	-5.517	19.413	-3.841	1.00	0.00	A	N
ATOM	3125	CA	ASN	A	418	-4.395	19.468	-2.926	1.00	0.00	A	C
ATOM	3126	CB	ASN	A	418	-4.190	20.882	-2.358	1.00	0.00	A	C
ATOM	3127	CG	ASN	A	418	-4.310	21.918	-3.480	1.00	0.00	A	C
ATOM	3128	OD1	ASN	A	418	-3.938	21.720	-4.633	1.00	0.00	A	O
ATOM	3129	ND2	ASN	A	418	-4.912	23.085	-3.116	1.00	0.00	A	N
ATOM	3130	C	ASN	A	418	-4.493	18.573	-1.732	1.00	0.00	A	C
ATOM	3131	O	ASN	A	418	-5.478	18.556	-0.993	1.00	0.00	A	O
ATOM	3132	N	PHE	A	419	-3.408	17.802	-1.542	1.00	0.00	A	N
ATOM	3133	CA	PHE	A	419	-3.270	16.873	-0.472	1.00	0.00	A	C
ATOM	3134	CB	PHE	A	419	-1.973	16.078	-0.626	1.00	0.00	A	C
ATOM	3135	CG	PHE	A	419	-1.903	15.010	0.401	1.00	0.00	A	C
ATOM	3136	CD1	PHE	A	419	-2.574	13.828	0.200	1.00	0.00	A	C
ATOM	3137	CD2	PHE	A	419	-1.172	15.178	1.551	1.00	0.00	A	C
ATOM	3138	CE1	PHE	A	419	-2.523	12.813	1.126	1.00	0.00	A	C
ATOM	3139	CE2	PHE	A	419	-1.113	14.171	2.481	1.00	0.00	A	C
ATOM	3140	CZ	PHE	A	419	-1.790	12.994	2.271	1.00	0.00	A	C
ATOM	3141	C	PHE	A	419	-3.206	17.651	0.801	1.00	0.00	A	C
ATOM	3142	O	PHE	A	419	-2.436	18.600	0.935	1.00	0.00	A	O
ATOM	3143	N	LYS	A	420	-4.068	17.274	1.756	1.00	0.00	A	N
ATOM	3144	CA	LYS	A	420	-4.102	17.871	3.044	1.00	0.00	A	C
ATOM	3145	CB	LYS	A	420	-5.448	18.500	3.463	1.00	0.00	A	C
ATOM	3146	CG	LYS	A	420	-6.671	17.587	3.448	1.00	0.00	A	C

Figure 7

ATOM	3147	CD	LYS	A	420	-7.816	18.120	4.306	1.00	0.00	A	C
ATOM	3148	CE	LYS	A	420	-8.023	19.629	4.181	1.00	0.00	A	C
ATOM	3149	NZ	LYS	A	420	-9.157	20.052	5.032	1.00	0.00	A	N
ATOM	3150	C	LYS	A	420	-3.705	16.834	4.043	1.00	0.00	A	C
ATOM	3151	O	LYS	A	420	-4.360	15.810	4.248	1.00	0.00	A	O
ATOM	3152	N	LYS	A	421	-2.577	17.082	4.708	1.00	0.00	A	N
ATOM	3153	CA	LYS	A	421	-2.097	16.134	5.653	1.00	0.00	A	C
ATOM	3154	CB	LYS	A	421	-0.615	16.289	6.019	1.00	0.00	A	C
ATOM	3155	CG	LYS	A	421	0.342	15.789	4.939	1.00	0.00	A	C
ATOM	3156	CD	LYS	A	421	1.810	16.028	5.298	1.00	0.00	A	C
ATOM	3157	CE	LYS	A	421	2.811	15.378	4.336	1.00	0.00	A	C
ATOM	3158	NZ	LYS	A	421	2.656	13.902	4.319	1.00	0.00	A	N
ATOM	3159	C	LYS	A	421	-2.866	16.270	6.919	1.00	0.00	A	C
ATOM	3160	O	LYS	A	421	-3.642	17.209	7.093	1.00	0.00	A	O
ATOM	3161	N	SER	A	422	-2.679	15.277	7.814	1.00	0.00	A	N
ATOM	3162	CA	SER	A	422	-3.280	15.272	9.116	1.00	0.00	A	C
ATOM	3163	CB	SER	A	422	-4.497	14.346	9.272	1.00	0.00	A	C
ATOM	3164	OG	SER	A	422	-5.684	15.017	8.891	1.00	0.00	A	O
ATOM	3165	C	SER	A	422	-2.289	14.748	10.108	1.00	0.00	A	C
ATOM	3166	O	SER	A	422	-1.460	13.885	9.823	1.00	0.00	A	O
ATOM	3167	N	ASN	A	423	-2.374	15.283	11.343	1.00	0.00	A	N
ATOM	3168	CA	ASN	A	423	-1.589	14.847	12.467	1.00	0.00	A	C
ATOM	3169	CB	ASN	A	423	-1.632	15.833	13.645	1.00	0.00	A	C
ATOM	3170	CG	ASN	A	423	-0.832	17.065	13.238	1.00	0.00	A	C
ATOM	3171	OD1	ASN	A	423	0.214	16.948	12.600	1.00	0.00	A	O
ATOM	3172	ND2	ASN	A	423	-1.331	18.277	13.605	1.00	0.00	A	N
ATOM	3173	C	ASN	A	423	-2.134	13.528	12.925	1.00	0.00	A	C
ATOM	3174	O	ASN	A	423	-1.457	12.725	13.563	1.00	0.00	A	O
ATOM	3175	N	TYR	A	424	-3.421	13.310	12.635	1.00	0.00	A	N
ATOM	3176	CA	TYR	A	424	-4.211	12.165	12.958	1.00	0.00	A	C
ATOM	3177	CB	TYR	A	424	-5.713	12.417	12.732	1.00	0.00	A	C
ATOM	3178	CG	TYR	A	424	-6.116	13.332	13.847	1.00	0.00	A	C
ATOM	3179	CD1	TYR	A	424	-6.010	14.699	13.717	1.00	0.00	A	C
ATOM	3180	CD2	TYR	A	424	-6.576	12.817	15.040	1.00	0.00	A	C
ATOM	3181	CE1	TYR	A	424	-6.372	15.533	14.746	1.00	0.00	A	C
ATOM	3182	CE2	TYR	A	424	-6.941	13.650	16.074	1.00	0.00	A	C
ATOM	3183	CZ	TYR	A	424	-6.832	15.011	15.927	1.00	0.00	A	C
ATOM	3184	OH	TYR	A	424	-7.200	15.880	16.975	1.00	0.00	A	O
ATOM	3185	C	TYR	A	424	-3.749	10.945	12.203	1.00	0.00	A	C
ATOM	3186	O	TYR	A	424	-4.184	9.842	12.528	1.00	0.00	A	O
ATOM	3187	N	PHE	A	425	-2.965	11.091	11.108	1.00	0.00	A	N
ATOM	3188	CA	PHE	A	425	-2.571	9.943	10.314	1.00	0.00	A	C
ATOM	3189	CB	PHE	A	425	-2.291	10.385	8.853	1.00	0.00	A	C
ATOM	3190	CG	PHE	A	425	-1.933	9.278	7.911	1.00	0.00	A	C
ATOM	3191	CD1	PHE	A	425	-2.896	8.454	7.372	1.00	0.00	A	C
ATOM	3192	CD2	PHE	A	425	-0.624	9.070	7.545	1.00	0.00	A	C
ATOM	3193	CE1	PHE	A	425	-2.550	7.450	6.495	1.00	0.00	A	C
ATOM	3194	CE2	PHE	A	425	-0.272	8.072	6.668	1.00	0.00	A	C
ATOM	3195	CZ	PHE	A	425	-1.237	7.252	6.143	1.00	0.00	A	C
ATOM	3196	C	PHE	A	425	-1.368	9.229	10.901	1.00	0.00	A	C
ATOM	3197	O	PHE	A	425	-0.219	9.468	10.541	1.00	0.00	A	O
ATOM	3198	N	MET	A	426	-1.666	8.354	11.880	1.00	0.00	A	N
ATOM	3199	CA	MET	A	426	-0.938	7.426	12.715	1.00	0.00	A	C
ATOM	3200	CB	MET	A	426	-1.576	7.263	14.103	1.00	0.00	A	C
ATOM	3201	CG	MET	A	426	-1.565	8.520	14.971	1.00	0.00	A	C
ATOM	3202	SD	MET	A	426	-0.001	8.876	15.821	1.00	0.00	A	S
ATOM	3203	CE	MET	A	426	0.778	9.696	14.406	1.00	0.00	A	C
ATOM	3204	C	MET	A	426	-0.716	6.009	12.240	1.00	0.00	A	C
ATOM	3205	O	MET	A	426	-0.412	5.309	13.201	1.00	0.00	A	O
ATOM	3206	N	PRO	A	427	-0.986	5.423	11.059	1.00	0.00	A	N
ATOM	3207	CA	PRO	A	427	-0.878	3.979	10.842	1.00	0.00	A	C
ATOM	3208	CD	PRO	A	427	-0.773	6.104	9.789	1.00	0.00	A	C
ATOM	3209	CB	PRO	A	427	-1.139	3.750	9.351	1.00	0.00	A	C
ATOM	3210	CG	PRO	A	427	-1.404	5.148	8.769	1.00	0.00	A	C
ATOM	3211	C	PRO	A	427	0.457	3.348	11.180	1.00	0.00	A	C
ATOM	3212	O	PRO	A	427	0.505	2.166	11.518	1.00	0.00	A	O
ATOM	3213	N	PHE	A	428	1.532	4.140	11.073	1.00	0.00	A	N
ATOM	3214	CA	PHE	A	428	2.891	3.805	11.371	1.00	0.00	A	C
ATOM	3215	CB	PHE	A	428	3.896	4.695	10.619	1.00	0.00	A	C
ATOM	3216	CG	PHE	A	428	3.723	4.352	9.175	1.00	0.00	A	C
ATOM	3217	CD1	PHE	A	428	4.401	3.306	8.606	1.00	0.00	A	C
ATOM	3218	CD2	PHE	A	428	2.863	5.060	8.377	1.00	0.00	A	C
ATOM	3219	CE1	PHE	A	428	4.238	2.992	7.276	1.00	0.00	A	C
ATOM	3220	CE2	PHE	A	428	2.694	4.751	7.048	1.00	0.00	A	C
ATOM	3221	CZ	PHE	A	428	3.383	3.713	6.484	1.00	0.00	A	C

Figure 7

ATOM	3222	C	PHE	A	428	3.185	3.865	12.840	1.00	0.00	A	C
ATOM	3223	O	PHE	A	428	4.199	3.321	13.268	1.00	0.00	A	O
ATOM	3224	N	SER	A	429	2.367	4.629	13.598	1.00	0.00	A	N
ATOM	3225	CA	SER	A	429	2.411	4.932	15.011	1.00	0.00	A	C
ATOM	3226	CB	SER	A	429	2.970	3.857	15.998	1.00	0.00	A	C
ATOM	3227	OG	SER	A	429	4.389	3.810	16.068	1.00	0.00	A	O
ATOM	3228	C	SER	A	429	3.132	6.242	15.128	1.00	0.00	A	C
ATOM	3229	O	SER	A	429	3.259	6.953	14.133	1.00	0.00	A	O
ATOM	3230	N	ALA	A	430	3.591	6.629	16.337	1.00	0.00	A	N
ATOM	3231	CA	ALA	A	430	4.249	7.898	16.453	1.00	0.00	A	C
ATOM	3232	CB	ALA	A	430	3.294	9.052	16.799	1.00	0.00	A	C
ATOM	3233	C	ALA	A	430	5.258	7.808	17.563	1.00	0.00	A	C
ATOM	3234	O	ALA	A	430	5.196	6.919	18.407	1.00	0.00	A	O
ATOM	3235	N	GLY	A	431	6.237	8.737	17.578	1.00	0.00	A	N
ATOM	3236	CA	GLY	A	431	7.184	8.777	18.659	1.00	0.00	A	C
ATOM	3237	C	GLY	A	431	8.467	8.063	18.352	1.00	0.00	A	C
ATOM	3238	O	GLY	A	431	8.855	7.875	17.203	1.00	0.00	A	O
ATOM	3239	N	LYS	A	432	9.179	7.680	19.432	1.00	0.00	A	N
ATOM	3240	CA	LYS	A	432	10.480	7.066	19.403	1.00	0.00	A	C
ATOM	3241	CB	LYS	A	432	10.996	6.747	20.819	1.00	0.00	A	C
ATOM	3242	CG	LYS	A	432	11.478	7.942	21.650	1.00	0.00	A	C
ATOM	3243	CD	LYS	A	432	12.822	8.522	21.200	1.00	0.00	A	C
ATOM	3244	CE	LYS	A	432	13.427	9.510	22.202	1.00	0.00	A	C
ATOM	3245	NZ	LYS	A	432	14.821	9.828	21.823	1.00	0.00	A	N
ATOM	3246	C	LYS	A	432	10.438	5.747	18.692	1.00	0.00	A	C
ATOM	3247	O	LYS	A	432	11.398	5.350	18.039	1.00	0.00	A	O
ATOM	3248	N	ARG	A	433	9.335	5.014	18.893	1.00	0.00	A	N
ATOM	3249	CA	ARG	A	433	9.045	3.700	18.395	1.00	0.00	A	C
ATOM	3250	CB	ARG	A	433	8.008	2.931	19.222	1.00	0.00	A	C
ATOM	3251	CG	ARG	A	433	8.647	2.211	20.398	1.00	0.00	A	C
ATOM	3252	CD	ARG	A	433	9.394	0.946	19.977	1.00	0.00	A	C
ATOM	3253	NE	ARG	A	433	10.178	0.550	21.165	1.00	0.00	A	N
ATOM	3254	CZ	ARG	A	433	10.963	-0.561	21.202	1.00	0.00	A	C
ATOM	3255	NH1	ARG	A	433	11.011	-1.424	20.147	1.00	0.00	A	N
ATOM	3256	NH2	ARG	A	433	11.704	-0.784	22.325	1.00	0.00	A	N
ATOM	3257	C	ARG	A	433	8.577	3.629	16.994	1.00	0.00	A	C
ATOM	3258	O	ARG	A	433	8.423	2.485	16.566	1.00	0.00	A	O
ATOM	3259	N	ILE	A	434	8.241	4.778	16.321	1.00	0.00	A	N
ATOM	3260	CA	ILE	A	434	7.692	4.902	14.965	1.00	0.00	A	C
ATOM	3261	CB	ILE	A	434	7.866	6.207	14.217	1.00	0.00	A	C
ATOM	3262	CG2	ILE	A	434	7.021	7.286	14.858	1.00	0.00	A	C
ATOM	3263	CG1	ILE	A	434	9.332	6.603	13.987	1.00	0.00	A	C
ATOM	3264	CD1	ILE	A	434	9.480	7.709	12.943	1.00	0.00	A	C
ATOM	3265	C	ILE	A	434	8.280	3.929	14.001	1.00	0.00	A	C
ATOM	3266	O	ILE	A	434	9.457	3.572	14.117	1.00	0.00	A	O
ATOM	3267	N	CYS	A	435	7.414	3.438	13.083	1.00	0.00	A	N
ATOM	3268	CA	CYS	A	435	7.799	2.407	12.171	1.00	0.00	A	C
ATOM	3269	CB	CYS	A	435	6.646	1.739	11.393	1.00	0.00	A	C
ATOM	3270	SG	CYS	A	435	7.357	0.594	10.193	1.00	0.00	A	S
ATOM	3271	C	CYS	A	435	8.946	2.813	11.298	1.00	0.00	A	C
ATOM	3272	O	CYS	A	435	8.941	3.820	10.593	1.00	0.00	A	O
ATOM	3273	N	VAL	A	436	10.010	1.984	11.416	1.00	0.00	A	N
ATOM	3274	CA	VAL	A	436	11.315	2.116	10.832	1.00	0.00	A	C
ATOM	3275	CB	VAL	A	436	12.185	0.952	11.222	1.00	0.00	A	C
ATOM	3276	CG1	VAL	A	436	13.530	1.001	10.474	1.00	0.00	A	C
ATOM	3277	CG2	VAL	A	436	12.318	0.985	12.755	1.00	0.00	A	C
ATOM	3278	C	VAL	A	436	11.165	2.141	9.343	1.00	0.00	A	C
ATOM	3279	O	VAL	A	436	11.911	2.809	8.630	1.00	0.00	A	O
ATOM	3280	N	GLY	A	437	10.201	1.350	8.867	1.00	0.00	A	N
ATOM	3281	CA	GLY	A	437	9.755	1.076	7.543	1.00	0.00	A	C
ATOM	3282	C	GLY	A	437	8.964	2.135	6.859	1.00	0.00	A	C
ATOM	3283	O	GLY	A	437	8.686	1.907	5.692	1.00	0.00	A	O
ATOM	3284	N	GLU	A	438	8.499	3.210	7.544	1.00	0.00	A	N
ATOM	3285	CA	GLU	A	438	7.534	4.199	7.088	1.00	0.00	A	C
ATOM	3286	CB	GLU	A	438	7.485	5.374	8.077	1.00	0.00	A	C
ATOM	3287	CG	GLU	A	438	6.429	6.438	7.791	1.00	0.00	A	C
ATOM	3288	CD	GLU	A	438	6.575	7.477	8.895	1.00	0.00	A	C
ATOM	3289	OE1	GLU	A	438	7.516	7.328	9.719	1.00	0.00	A	O
ATOM	3290	OE2	GLU	A	438	5.750	8.427	8.934	1.00	0.00	A	O
ATOM	3291	C	GLU	A	438	7.835	4.769	5.716	1.00	0.00	A	C
ATOM	3292	O	GLU	A	438	6.943	4.834	4.867	1.00	0.00	A	O
ATOM	3293	N	GLY	A	439	9.093	5.159	5.451	1.00	0.00	A	N
ATOM	3294	CA	GLY	A	439	9.461	5.679	4.159	1.00	0.00	A	C
ATOM	3295	C	GLY	A	439	9.390	4.617	3.095	1.00	0.00	A	C
ATOM	3296	O	GLY	A	439	8.928	4.888	1.985	1.00	0.00	A	O

Figure 7

ATOM	3297	N	LEU	A	440	9.863	3.391	3.415	1.00	0.00	A	N
ATOM	3298	CA	LEU	A	440	9.917	2.299	2.477	1.00	0.00	A	C
ATOM	3299	CB	LEU	A	440	10.624	1.057	3.046	1.00	0.00	A	C
ATOM	3300	CG	LEU	A	440	10.687	-0.115	2.047	1.00	0.00	A	C
ATOM	3301	CD2	LEU	A	440	11.242	-1.388	2.707	1.00	0.00	A	C
ATOM	3302	CD1	LEU	A	440	11.463	0.275	0.778	1.00	0.00	A	C
ATOM	3303	C	LEU	A	440	8.535	1.885	2.080	1.00	0.00	A	C
ATOM	3304	O	LEU	A	440	8.270	1.604	0.917	1.00	0.00	A	O
ATOM	3305	N	ALA	A	441	7.620	1.840	3.057	1.00	0.00	A	N
ATOM	3306	CA	ALA	A	441	6.268	1.412	2.917	1.00	0.00	A	C
ATOM	3307	CB	ALA	A	441	5.528	1.379	4.263	1.00	0.00	A	C
ATOM	3308	C	ALA	A	441	5.518	2.340	2.028	1.00	0.00	A	C
ATOM	3309	O	ALA	A	441	4.740	1.877	1.201	1.00	0.00	A	O
ATOM	3310	N	ARG	A	442	5.714	3.664	2.201	1.00	0.00	A	N
ATOM	3311	CA	ARG	A	442	5.012	4.650	1.417	1.00	0.00	A	C
ATOM	3312	CB	ARG	A	442	5.233	6.087	1.915	1.00	0.00	A	C
ATOM	3313	CG	ARG	A	442	4.524	6.355	3.244	1.00	0.00	A	C
ATOM	3314	CD	ARG	A	442	4.563	7.818	3.683	1.00	0.00	A	C
ATOM	3315	NE	ARG	A	442	5.954	8.124	4.116	1.00	0.00	A	N
ATOM	3316	CZ	ARG	A	442	6.374	9.420	4.171	1.00	0.00	A	C
ATOM	3317	NH1	ARG	A	442	5.533	10.424	3.787	1.00	0.00	A	N
ATOM	3318	NH2	ARG	A	442	7.633	9.712	4.612	1.00	0.00	A	N
ATOM	3319	C	ARG	A	442	5.474	4.555	0.005	1.00	0.00	A	C
ATOM	3320	O	ARG	A	442	4.696	4.748	-0.932	1.00	0.00	A	O
ATOM	3321	N	MET	A	443	6.774	4.253	-0.157	1.00	0.00	A	N
ATOM	3322	CA	MET	A	443	7.377	4.107	-1.445	1.00	0.00	A	C
ATOM	3323	CB	MET	A	443	8.887	3.890	-1.312	1.00	0.00	A	C
ATOM	3324	CG	MET	A	443	9.671	4.000	-2.613	1.00	0.00	A	C
ATOM	3325	SD	MET	A	443	11.460	3.913	-2.334	1.00	0.00	A	S
ATOM	3326	CE	MET	A	443	11.616	5.607	-1.703	1.00	0.00	A	C
ATOM	3327	C	MET	A	443	6.776	2.913	-2.145	1.00	0.00	A	C
ATOM	3328	O	MET	A	443	6.459	2.973	-3.329	1.00	0.00	A	O
ATOM	3329	N	GLU	A	444	6.586	1.792	-1.421	1.00	0.00	A	N
ATOM	3330	CA	GLU	A	444	6.054	0.597	-2.013	1.00	0.00	A	C
ATOM	3331	CB	GLU	A	444	6.202	-0.645	-1.122	1.00	0.00	A	C
ATOM	3332	CG	GLU	A	444	7.661	-1.062	-0.933	1.00	0.00	A	C
ATOM	3333	CD	GLU	A	444	7.683	-2.325	-0.089	1.00	0.00	A	C
ATOM	3334	OE1	GLU	A	444	7.066	-3.332	-0.528	1.00	0.00	A	O
ATOM	3335	OE2	GLU	A	444	8.308	-2.304	1.005	1.00	0.00	A	O
ATOM	3336	C	GLU	A	444	4.607	0.755	-2.360	1.00	0.00	A	C
ATOM	3337	O	GLU	A	444	4.186	0.278	-3.406	1.00	0.00	A	O
ATOM	3338	N	LEU	A	445	3.809	1.406	-1.489	1.00	0.00	A	N
ATOM	3339	CA	LEU	A	445	2.391	1.572	-1.695	1.00	0.00	A	C
ATOM	3340	CB	LEU	A	445	1.693	2.249	-0.505	1.00	0.00	A	C
ATOM	3341	CG	LEU	A	445	1.713	1.401	0.779	1.00	0.00	A	C
ATOM	3342	CD2	LEU	A	445	1.162	-0.009	0.520	1.00	0.00	A	C
ATOM	3343	CD1	LEU	A	445	1.000	2.121	1.936	1.00	0.00	A	C
ATOM	3344	C	LEU	A	445	2.151	2.432	-2.891	1.00	0.00	A	C
ATOM	3345	O	LEU	A	445	1.349	2.076	-3.755	1.00	0.00	A	O
ATOM	3346	N	PHE	A	446	2.881	3.564	-2.971	1.00	0.00	A	N
ATOM	3347	CA	PHE	A	446	2.721	4.491	-4.056	1.00	0.00	A	C
ATOM	3348	CB	PHE	A	446	3.526	5.796	-3.829	1.00	0.00	A	C
ATOM	3349	CG	PHE	A	446	3.337	6.734	-4.982	1.00	0.00	A	C
ATOM	3350	CD1	PHE	A	446	2.177	7.470	-5.085	1.00	0.00	A	C
ATOM	3351	CD2	PHE	A	446	4.296	6.883	-5.962	1.00	0.00	A	C
ATOM	3352	CE1	PHE	A	446	1.977	8.332	-6.139	1.00	0.00	A	C
ATOM	3353	CE2	PHE	A	446	4.102	7.743	-7.018	1.00	0.00	A	C
ATOM	3354	CZ	PHE	A	446	2.941	8.475	-7.105	1.00	0.00	A	C
ATOM	3355	C	PHE	A	446	3.157	3.881	-5.366	1.00	0.00	A	C
ATOM	3356	O	PHE	A	446	2.397	3.898	-6.331	1.00	0.00	A	O
ATOM	3357	N	LEU	A	447	4.378	3.312	-5.429	1.00	0.00	A	N
ATOM	3358	CA	LEU	A	447	4.877	2.796	-6.678	1.00	0.00	A	C
ATOM	3359	CB	LEU	A	447	6.403	2.573	-6.700	1.00	0.00	A	C
ATOM	3360	CG	LEU	A	447	7.206	3.886	-6.871	1.00	0.00	A	C
ATOM	3361	CD2	LEU	A	447	8.649	3.601	-7.288	1.00	0.00	A	C
ATOM	3362	CD1	LEU	A	447	7.128	4.817	-5.655	1.00	0.00	A	C
ATOM	3363	C	LEU	A	447	4.169	1.561	-7.154	1.00	0.00	A	C
ATOM	3364	O	LEU	A	447	3.969	1.402	-8.357	1.00	0.00	A	O
ATOM	3365	N	PHE	A	448	3.802	0.633	-6.248	1.00	0.00	A	N
ATOM	3366	CA	PHE	A	448	3.134	-0.568	-6.678	1.00	0.00	A	C
ATOM	3367	CB	PHE	A	448	3.017	-1.699	-5.632	1.00	0.00	A	C
ATOM	3368	CG	PHE	A	448	4.364	-2.295	-5.383	1.00	0.00	A	C
ATOM	3369	CD1	PHE	A	448	5.194	-2.616	-6.433	1.00	0.00	A	C
ATOM	3370	CD2	PHE	A	448	4.772	-2.612	-4.106	1.00	0.00	A	C
ATOM	3371	CE1	PHE	A	448	6.429	-3.177	-6.203	1.00	0.00	A	C

485/514

Figure 7

ATOM	3372	CE2	PHE	A	448	6.003	-3.173	-3.869	1.00	0.00	A	C
ATOM	3373	CZ	PHE	A	448	6.839	-3.450	-4.920	1.00	0.00	A	C
ATOM	3374	C	PHE	A	448	1.742	-0.275	-7.157	1.00	0.00	A	C
ATOM	3375	O	PHE	A	448	1.294	-0.843	-8.151	1.00	0.00	A	O
ATOM	3376	N	LEU	A	449	1.006	0.598	-6.441	1.00	0.00	A	N
ATOM	3377	CA	LEU	A	449	-0.357	0.893	-6.802	1.00	0.00	A	C
ATOM	3378	CB	LEU	A	449	-1.102	1.714	-5.736	1.00	0.00	A	C
ATOM	3379	CG	LEU	A	449	-1.391	0.927	-4.446	1.00	0.00	A	C
ATOM	3380	CD2	LEU	A	449	-2.116	-0.394	-4.744	1.00	0.00	A	C
ATOM	3381	CD1	LEU	A	449	-2.138	1.796	-3.424	1.00	0.00	A	C
ATOM	3382	C	LEU	A	449	-0.460	1.641	-8.100	1.00	0.00	A	C
ATOM	3383	O	LEU	A	449	-1.320	1.327	-8.922	1.00	0.00	A	O
ATOM	3384	N	THR	A	450	0.411	2.653	-8.300	1.00	0.00	A	N
ATOM	3385	CA	THR	A	450	0.382	3.470	-9.486	1.00	0.00	A	C
ATOM	3386	CB	THR	A	450	1.329	4.636	-9.406	1.00	0.00	A	C
ATOM	3387	OG1	THR	A	450	1.007	5.444	-8.289	1.00	0.00	A	O
ATOM	3388	CG2	THR	A	450	1.209	5.488	-10.673	1.00	0.00	A	C
ATOM	3389	C	THR	A	450	0.775	2.635	-10.659	1.00	0.00	A	C
ATOM	3390	O	THR	A	450	0.226	2.806	-11.743	1.00	0.00	A	O
ATOM	3391	N	PHE	A	451	1.733	1.708	-10.457	1.00	0.00	A	N
ATOM	3392	CA	PHE	A	451	2.231	0.875	-11.516	1.00	0.00	A	C
ATOM	3393	CB	PHE	A	451	3.432	0.022	-11.083	1.00	0.00	A	C
ATOM	3394	CG	PHE	A	451	4.412	0.050	-12.205	1.00	0.00	A	C
ATOM	3395	CD1	PHE	A	451	4.048	-0.275	-13.486	1.00	0.00	A	C
ATOM	3396	CD2	PHE	A	451	5.723	0.389	-11.965	1.00	0.00	A	C
ATOM	3397	CE1	PHE	A	451	4.960	-0.254	-14.514	1.00	0.00	A	C
ATOM	3398	CE2	PHE	A	451	6.644	0.412	-12.984	1.00	0.00	A	C
ATOM	3399	CZ	PHE	A	451	6.265	0.093	-14.266	1.00	0.00	A	C
ATOM	3400	C	PHE	A	451	1.140	-0.068	-11.953	1.00	0.00	A	C
ATOM	3401	O	PHE	A	451	0.968	-0.301	-13.148	1.00	0.00	A	O
ATOM	3402	N	ILE	A	452	0.381	-0.630	-10.984	1.00	0.00	A	N
ATOM	3403	CA	ILE	A	452	-0.688	-1.549	-11.289	1.00	0.00	A	C
ATOM	3404	CB	ILE	A	452	-1.282	-2.192	-10.065	1.00	0.00	A	C
ATOM	3405	CG2	ILE	A	452	-2.601	-2.887	-10.444	1.00	0.00	A	C
ATOM	3406	CG1	ILE	A	452	-0.259	-3.139	-9.419	1.00	0.00	A	C
ATOM	3407	CD1	ILE	A	452	-0.686	-3.640	-8.039	1.00	0.00	A	C
ATOM	3408	C	ILE	A	452	-1.797	-0.860	-12.046	1.00	0.00	A	C
ATOM	3409	O	ILE	A	452	-2.262	-1.369	-13.064	1.00	0.00	A	O
ATOM	3410	N	LEU	A	453	-2.231	0.328	-11.586	1.00	0.00	A	N
ATOM	3411	CA	LEU	A	453	-3.308	1.048	-12.217	1.00	0.00	A	C
ATOM	3412	CB	LEU	A	453	-3.858	2.222	-11.385	1.00	0.00	A	C
ATOM	3413	CG	LEU	A	453	-4.702	1.764	-10.181	1.00	0.00	A	C
ATOM	3414	CD2	LEU	A	453	-5.811	0.795	-10.627	1.00	0.00	A	C
ATOM	3415	CD1	LEU	A	453	-5.249	2.959	-9.383	1.00	0.00	A	C
ATOM	3416	C	LEU	A	453	-2.922	1.570	-13.561	1.00	0.00	A	C
ATOM	3417	O	LEU	A	453	-3.785	1.787	-14.411	1.00	0.00	A	O
ATOM	3418	N	GLN	A	454	-1.630	1.869	-13.763	1.00	0.00	A	N
ATOM	3419	CA	GLN	A	454	-1.164	2.379	-15.017	1.00	0.00	A	C
ATOM	3420	CB	GLN	A	454	0.301	2.834	-14.949	1.00	0.00	A	C
ATOM	3421	CG	GLN	A	454	0.832	3.389	-16.268	1.00	0.00	A	C
ATOM	3422	CD	GLN	A	454	2.211	3.965	-15.989	1.00	0.00	A	C
ATOM	3423	OE1	GLN	A	454	2.330	5.012	-15.356	1.00	0.00	A	O
ATOM	3424	NE2	GLN	A	454	3.278	3.266	-16.461	1.00	0.00	A	N
ATOM	3425	C	GLN	A	454	-1.292	1.311	-16.071	1.00	0.00	A	C
ATOM	3426	O	GLN	A	454	-1.589	1.610	-17.227	1.00	0.00	A	O
ATOM	3427	N	ASN	A	455	-1.002	0.051	-15.699	1.00	0.00	A	N
ATOM	3428	CA	ASN	A	455	-1.030	-1.080	-16.591	1.00	0.00	A	C
ATOM	3429	CB	ASN	A	455	-0.038	-2.173	-16.180	1.00	0.00	A	C
ATOM	3430	CG	ASN	A	455	1.341	-1.590	-16.416	1.00	0.00	A	C
ATOM	3431	OD1	ASN	A	455	2.173	-1.545	-15.514	1.00	0.00	A	O
ATOM	3432	ND2	ASN	A	455	1.596	-1.113	-17.662	1.00	0.00	A	N
ATOM	3433	C	ASN	A	455	-2.363	-1.745	-16.795	1.00	0.00	A	C
ATOM	3434	O	ASN	A	455	-2.619	-2.296	-17.864	1.00	0.00	A	O
ATOM	3435	N	PHE	A	456	-3.245	-1.768	-15.780	1.00	0.00	A	N
ATOM	3436	CA	PHE	A	456	-4.397	-2.607	-15.953	1.00	0.00	A	C
ATOM	3437	CB	PHE	A	456	-4.473	-3.738	-14.912	1.00	0.00	A	C
ATOM	3438	CG	PHE	A	456	-3.220	-4.543	-14.999	1.00	0.00	A	C
ATOM	3439	CD1	PHE	A	456	-3.027	-5.448	-16.017	1.00	0.00	A	C
ATOM	3440	CD2	PHE	A	456	-2.240	-4.396	-14.044	1.00	0.00	A	C
ATOM	3441	CE1	PHE	A	456	-1.868	-6.187	-16.087	1.00	0.00	A	C
ATOM	3442	CE2	PHE	A	456	-1.079	-5.132	-14.107	1.00	0.00	A	C
ATOM	3443	CZ	PHE	A	456	-0.893	-6.029	-15.132	1.00	0.00	A	C
ATOM	3444	C	PHE	A	456	-5.642	-1.804	-15.765	1.00	0.00	A	C
ATOM	3445	O	PHE	A	456	-5.716	-0.622	-16.090	1.00	0.00	A	O
ATOM	3446	N	ASN	A	457	-6.695	-2.507	-15.313	1.00	0.00	A	N

486/514

Figure 7

ATOM	3447	CA	ASN	A	457	-7.959	-1.972	-14.933	1.00	0.00	A	C
ATOM	3448	CB	ASN	A	457	-9.047	-2.066	-16.014	1.00	0.00	A	C
ATOM	3449	CG	ASN	A	457	-8.737	-1.056	-17.107	1.00	0.00	A	C
ATOM	3450	OD1	ASN	A	457	-8.458	-1.430	-18.244	1.00	0.00	A	O
ATOM	3451	ND2	ASN	A	457	-8.790	0.258	-16.760	1.00	0.00	A	N
ATOM	3452	C	ASN	A	457	-8.339	-2.925	-13.854	1.00	0.00	A	C
ATOM	3453	O	ASN	A	457	-7.782	-4.020	-13.796	1.00	0.00	A	O
ATOM	3454	N	LEU	A	458	-9.255	-2.547	-12.944	1.00	0.00	A	N
ATOM	3455	CA	LEU	A	458	-9.597	-3.503	-11.932	1.00	0.00	A	C
ATOM	3456	CB	LEU	A	458	-9.465	-2.969	-10.496	1.00	0.00	A	C
ATOM	3457	CG	LEU	A	458	-8.015	-2.605	-10.115	1.00	0.00	A	C
ATOM	3458	CD2	LEU	A	458	-7.041	-3.764	-10.397	1.00	0.00	A	C
ATOM	3459	CD1	LEU	A	458	-7.935	-2.086	-8.673	1.00	0.00	A	C
ATOM	3460	C	LEU	A	458	-11.015	-3.938	-12.153	1.00	0.00	A	C
ATOM	3461	O	LEU	A	458	-11.949	-3.144	-12.044	1.00	0.00	A	O
ATOM	3462	N	LYS	A	459	-11.205	-5.240	-12.461	1.00	0.00	A	N
ATOM	3463	CA	LYS	A	459	-12.509	-5.768	-12.757	1.00	0.00	A	C
ATOM	3464	CB	LYS	A	459	-12.545	-6.428	-14.146	1.00	0.00	A	C
ATOM	3465	CG	LYS	A	459	-13.919	-6.898	-14.615	1.00	0.00	A	C
ATOM	3466	CD	LYS	A	459	-14.861	-5.758	-14.998	1.00	0.00	A	C
ATOM	3467	CE	LYS	A	459	-16.102	-6.252	-15.736	1.00	0.00	A	C
ATOM	3468	NZ	LYS	A	459	-15.689	-7.135	-16.850	1.00	0.00	A	N
ATOM	3469	C	LYS	A	459	-12.887	-6.814	-11.736	1.00	0.00	A	C
ATOM	3470	O	LYS	A	459	-12.213	-7.833	-11.610	1.00	0.00	A	O
ATOM	3471	N	SER	A	460	-13.984	-6.589	-10.970	1.00	0.00	A	N
ATOM	3472	CA	SER	A	460	-14.455	-7.570	-10.016	1.00	0.00	A	C
ATOM	3473	CB	SER	A	460	-15.202	-6.969	-8.812	1.00	0.00	A	C
ATOM	3474	OG	SER	A	460	-16.376	-6.285	-9.229	1.00	0.00	A	C
ATOM	3475	C	SER	A	460	-15.423	-8.462	-10.733	1.00	0.00	A	C
ATOM	3476	O	SER	A	460	-16.229	-7.987	-11.529	1.00	0.00	A	O
ATOM	3477	N	LEU	A	461	-15.337	-9.793	-10.524	1.00	0.00	A	N
ATOM	3478	CA	LEU	A	461	-16.290	-10.677	-11.139	1.00	0.00	A	C
ATOM	3479	CB	LEU	A	461	-15.897	-12.181	-11.172	1.00	0.00	A	C
ATOM	3480	CG	LEU	A	461	-15.150	-12.788	-9.958	1.00	0.00	A	C
ATOM	3481	CD2	LEU	A	461	-13.671	-12.355	-9.900	1.00	0.00	A	C
ATOM	3482	CD1	LEU	A	461	-15.206	-14.324	-10.010	1.00	0.00	A	C
ATOM	3483	C	LEU	A	461	-17.596	-10.528	-10.435	1.00	0.00	A	C
ATOM	3484	O	LEU	A	461	-18.621	-10.213	-11.038	1.00	0.00	A	O
ATOM	3485	N	ILE	A	462	-17.583	-10.694	-9.101	1.00	0.00	A	N
ATOM	3486	CA	ILE	A	462	-18.799	-10.487	-8.390	1.00	0.00	A	C
ATOM	3487	CB	ILE	A	462	-18.808	-11.112	-7.026	1.00	0.00	A	C
ATOM	3488	CG2	ILE	A	462	-20.121	-10.718	-6.327	1.00	0.00	A	C
ATOM	3489	CG1	ILE	A	462	-18.605	-12.632	-7.141	1.00	0.00	A	C
ATOM	3490	CD1	ILE	A	462	-19.686	-13.331	-7.965	1.00	0.00	A	C
ATOM	3491	C	ILE	A	462	-18.822	-9.007	-8.234	1.00	0.00	A	C
ATOM	3492	O	ILE	A	462	-17.847	-8.452	-7.730	1.00	0.00	A	O
ATOM	3493	N	ASP	A	463	-19.936	-8.381	-8.684	1.00	0.00	A	N
ATOM	3494	CA	ASP	A	463	-20.274	-6.976	-8.789	1.00	0.00	A	C
ATOM	3495	CB	ASP	A	463	-21.793	-6.726	-8.777	1.00	0.00	A	C
ATOM	3496	CG	ASP	A	463	-22.342	-6.753	-10.176	1.00	0.00	A	C
ATOM	3497	OD1	ASP	A	463	-21.891	-5.895	-10.979	1.00	0.00	A	O
ATOM	3498	OD2	ASP	A	463	-23.223	-7.607	-10.457	1.00	0.00	A	O
ATOM	3499	C	ASP	A	463	-19.810	-6.171	-7.629	1.00	0.00	A	C
ATOM	3500	O	ASP	A	463	-20.003	-6.568	-6.481	1.00	0.00	A	O
ATOM	3501	N	PRO	A	464	-19.215	-5.039	-7.976	1.00	0.00	A	N
ATOM	3502	CA	PRO	A	464	-18.666	-4.063	-7.067	1.00	0.00	A	C
ATOM	3503	CD	PRO	A	464	-19.321	-4.515	-9.330	1.00	0.00	A	C
ATOM	3504	CB	PRO	A	464	-18.167	-2.912	-7.935	1.00	0.00	A	C
ATOM	3505	CG	PRO	A	464	-19.033	-3.011	-9.202	1.00	0.00	A	C
ATOM	3506	C	PRO	A	464	-19.664	-3.600	-6.051	1.00	0.00	A	C
ATOM	3507	O	PRO	A	464	-19.268	-3.402	-4.906	1.00	0.00	A	O
ATOM	3508	N	LYS	A	465	-20.942	-3.470	-6.446	1.00	0.00	A	N
ATOM	3509	CA	LYS	A	465	-22.036	-3.001	-5.638	1.00	0.00	A	C
ATOM	3510	CB	LYS	A	465	-23.388	-3.022	-6.391	1.00	0.00	A	C
ATOM	3511	CG	LYS	A	465	-23.404	-2.361	-7.779	1.00	0.00	A	C
ATOM	3512	CD	LYS	A	465	-22.863	-3.263	-8.898	1.00	0.00	A	C
ATOM	3513	CE	LYS	A	465	-22.813	-2.620	-10.283	1.00	0.00	A	C
ATOM	3514	NZ	LYS	A	465	-24.179	-2.515	-10.836	1.00	0.00	A	N
ATOM	3515	C	LYS	A	465	-22.215	-3.952	-4.487	1.00	0.00	A	C
ATOM	3516	O	LYS	A	465	-22.496	-3.535	-3.364	1.00	0.00	A	O
ATOM	3517	N	ASP	A	466	-22.075	-5.261	-4.778	1.00	0.00	A	N
ATOM	3518	CA	ASP	A	466	-22.280	-6.367	-3.878	1.00	0.00	A	C
ATOM	3519	CB	ASP	A	466	-22.342	-7.707	-4.634	1.00	0.00	A	C
ATOM	3520	CG	ASP	A	466	-23.610	-7.740	-5.473	1.00	0.00	A	C
ATOM	3521	OD1	ASP	A	466	-24.615	-7.099	-5.065	1.00	0.00	A	O

Figure 7

ATOM	3522	OD2	ASP	A	466	-23.586	-8.409	-6.542	1.00	0.00	A	O
ATOM	3523	C	ASP	A	466	-21.225	-6.548	-2.804	1.00	0.00	A	C
ATOM	3524	O	ASP	A	466	-21.577	-6.888	-1.674	1.00	0.00	A	O
ATOM	3525	N	LEU	A	467	-19.924	-6.334	-3.124	1.00	0.00	A	N
ATOM	3526	CA	LEU	A	467	-18.762	-6.683	-2.321	1.00	0.00	A	C
ATOM	3527	CB	LEU	A	467	-17.434	-6.204	-2.944	1.00	0.00	A	C
ATOM	3528	CG	LEU	A	467	-17.123	-6.689	-4.372	1.00	0.00	A	C
ATOM	3529	CD2	LEU	A	467	-17.176	-8.220	-4.507	1.00	0.00	A	C
ATOM	3530	CD1	LEU	A	467	-15.773	-6.117	-4.836	1.00	0.00	A	C
ATOM	3531	C	LEU	A	467	-18.745	-6.068	-0.938	1.00	0.00	A	C
ATOM	3532	O	LEU	A	467	-19.178	-4.937	-0.736	1.00	0.00	A	O
ATOM	3533	N	ASP	A	468	-18.214	-6.844	0.040	1.00	0.00	A	N
ATOM	3534	CA	ASP	A	468	-18.095	-6.484	1.432	1.00	0.00	A	C
ATOM	3535	CB	ASP	A	468	-18.423	-7.664	2.359	1.00	0.00	A	C
ATOM	3536	CG	ASP	A	468	-18.137	-7.241	3.783	1.00	0.00	A	C
ATOM	3537	OD1	ASP	A	468	-18.841	-6.337	4.306	1.00	0.00	A	O
ATOM	3538	OD2	ASP	A	468	-17.192	-7.837	4.364	1.00	0.00	A	O
ATOM	3539	C	ASP	A	468	-16.678	-6.071	1.724	1.00	0.00	A	C
ATOM	3540	O	ASP	A	468	-15.731	-6.817	1.487	1.00	0.00	A	O
ATOM	3541	N	THR	A	469	-16.515	-4.810	2.168	1.00	0.00	A	N
ATOM	3542	CA	THR	A	469	-15.297	-4.140	2.541	1.00	0.00	A	C
ATOM	3543	CB	THR	A	469	-15.329	-2.680	2.197	1.00	0.00	A	C
ATOM	3544	OG1	THR	A	469	-16.310	-2.009	2.973	1.00	0.00	A	O
ATOM	3545	CG2	THR	A	469	-15.661	-2.557	0.698	1.00	0.00	A	C
ATOM	3546	C	THR	A	469	-14.955	-4.266	3.995	1.00	0.00	A	C
ATOM	3547	O	THR	A	469	-13.912	-3.747	4.393	1.00	0.00	A	O
ATOM	3548	N	THR	A	470	-15.866	-4.813	4.840	1.00	0.00	A	N
ATOM	3549	CA	THR	A	470	-15.635	-4.804	6.265	1.00	0.00	A	C
ATOM	3550	CB	THR	A	470	-16.799	-5.198	7.130	1.00	0.00	A	C
ATOM	3551	OG1	THR	A	470	-17.154	-6.553	6.915	1.00	0.00	A	O
ATOM	3552	CG2	THR	A	470	-17.984	-4.273	6.828	1.00	0.00	A	C
ATOM	3553	C	THR	A	470	-14.489	-5.680	6.647	1.00	0.00	A	C
ATOM	3554	O	THR	A	470	-14.331	-6.824	6.224	1.00	0.00	A	O
ATOM	3555	N	PRO	A	471	-13.689	-5.056	7.468	1.00	0.00	A	N
ATOM	3556	CA	PRO	A	471	-12.462	-5.609	7.963	1.00	0.00	A	C
ATOM	3557	CD	PRO	A	471	-13.793	-3.624	7.687	1.00	0.00	A	C
ATOM	3558	CB	PRO	A	471	-11.788	-4.484	8.752	1.00	0.00	A	C
ATOM	3559	CG	PRO	A	471	-12.412	-3.187	8.195	1.00	0.00	A	C
ATOM	3560	C	PRO	A	471	-12.806	-6.749	8.860	1.00	0.00	A	C
ATOM	3561	O	PRO	A	471	-13.765	-6.626	9.615	1.00	0.00	A	O
ATOM	3562	N	VAL	A	472	-12.048	-7.859	8.808	1.00	0.00	A	N
ATOM	3563	CA	VAL	A	472	-12.331	-8.892	9.749	1.00	0.00	A	C
ATOM	3564	CB	VAL	A	472	-12.473	-10.281	9.165	1.00	0.00	A	C
ATOM	3565	CG1	VAL	A	472	-11.201	-10.731	8.430	1.00	0.00	A	C
ATOM	3566	CG2	VAL	A	472	-12.883	-11.218	10.303	1.00	0.00	A	C
ATOM	3567	C	VAL	A	472	-11.259	-8.796	10.798	1.00	0.00	A	C
ATOM	3568	O	VAL	A	472	-10.060	-8.856	10.520	1.00	0.00	A	O
ATOM	3569	N	VAL	A	473	-11.675	-8.604	12.066	1.00	0.00	A	N
ATOM	3570	CA	VAL	A	473	-10.707	-8.345	13.096	1.00	0.00	A	C
ATOM	3571	CB	VAL	A	473	-11.151	-7.245	14.033	1.00	0.00	A	C
ATOM	3572	CG1	VAL	A	473	-10.090	-7.023	15.124	1.00	0.00	A	C
ATOM	3573	CG2	VAL	A	473	-11.458	-5.988	13.207	1.00	0.00	A	C
ATOM	3574	C	VAL	A	473	-10.485	-9.585	13.923	1.00	0.00	A	C
ATOM	3575	O	VAL	A	473	-11.422	-10.304	14.280	1.00	0.00	A	O
ATOM	3576	N	ASN	A	474	-9.204	-9.887	14.220	1.00	0.00	A	N
ATOM	3577	CA	ASN	A	474	-8.868	-10.968	15.098	1.00	0.00	A	C
ATOM	3578	CB	ASN	A	474	-8.097	-12.114	14.419	1.00	0.00	A	C
ATOM	3579	CG	ASN	A	474	-9.060	-12.895	13.535	1.00	0.00	A	C
ATOM	3580	OD1	ASN	A	474	-8.901	-12.954	12.318	1.00	0.00	A	O
ATOM	3581	ND2	ASN	A	474	-10.090	-13.515	14.169	1.00	0.00	A	N
ATOM	3582	C	ASN	A	474	-7.968	-10.410	16.159	1.00	0.00	A	C
ATOM	3583	O	ASN	A	474	-6.746	-10.463	16.039	1.00	0.00	A	O
ATOM	3584	N	GLY	A	475	-8.559	-9.903	17.258	1.00	0.00	A	N
ATOM	3585	CA	GLY	A	475	-7.778	-9.377	18.344	1.00	0.00	A	C
ATOM	3586	C	GLY	A	475	-7.111	-8.091	17.940	1.00	0.00	A	C
ATOM	3587	O	GLY	A	475	-7.758	-7.047	17.848	1.00	0.00	A	O
ATOM	3588	N	PHE	A	476	-5.768	-8.153	17.824	1.00	0.00	A	N
ATOM	3589	CA	PHE	A	476	-4.825	-7.110	17.508	1.00	0.00	A	C
ATOM	3590	CB	PHE	A	476	-3.434	-7.327	18.135	1.00	0.00	A	C
ATOM	3591	CG	PHE	A	476	-3.623	-7.236	19.617	1.00	0.00	A	C
ATOM	3592	CD1	PHE	A	476	-4.063	-6.064	20.181	1.00	0.00	A	C
ATOM	3593	CD2	PHE	A	476	-3.423	-8.319	20.444	1.00	0.00	A	C
ATOM	3594	CE1	PHE	A	476	-4.260	-5.949	21.537	1.00	0.00	A	C
ATOM	3595	CE2	PHE	A	476	-3.617	-8.203	21.804	1.00	0.00	A	C
ATOM	3596	CZ	PHE	A	476	-4.033	-7.020	22.361	1.00	0.00	A	C

Figure 7

ATOM	3597	C	PHE A 476	-4.662	-6.786	16.040	1.00	0.00	A	C
ATOM	3598	O	PHE A 476	-4.031	-5.781	15.726	1.00	0.00	A	O
ATOM	3599	N	ALA A 477	-5.078	-7.651	15.090	1.00	0.00	A	N
ATOM	3600	CA	ALA A 477	-4.843	-7.338	13.696	1.00	0.00	A	C
ATOM	3601	CB	ALA A 477	-3.797	-8.251	13.031	1.00	0.00	A	C
ATOM	3602	C	ALA A 477	-6.121	-7.504	12.928	1.00	0.00	A	C
ATOM	3603	O	ALA A 477	-7.082	-8.071	13.438	1.00	0.00	A	O
ATOM	3604	N	SER A 478	-6.176	-6.973	11.684	1.00	0.00	A	N
ATOM	3605	CA	SER A 478	-7.354	-7.085	10.867	1.00	0.00	A	C
ATOM	3606	CB	SER A 478	-8.174	-5.786	10.807	1.00	0.00	A	C
ATOM	3607	OG	SER A 478	-8.590	-5.419	12.114	1.00	0.00	A	O
ATOM	3608	C	SER A 478	-6.903	-7.368	9.469	1.00	0.00	A	C
ATOM	3609	O	SER A 478	-5.780	-7.028	9.099	1.00	0.00	A	O
ATOM	3610	N	VAL A 479	-7.773	-8.012	8.661	1.00	0.00	A	N
ATOM	3611	CA	VAL A 479	-7.437	-8.314	7.295	1.00	0.00	A	C
ATOM	3612	CB	VAL A 479	-6.940	-9.721	7.088	1.00	0.00	A	C
ATOM	3613	CG1	VAL A 479	-5.617	-9.914	7.846	1.00	0.00	A	C
ATOM	3614	CG2	VAL A 479	-8.049	-10.699	7.505	1.00	0.00	A	C
ATOM	3615	C	VAL A 479	-8.684	-8.180	6.480	1.00	0.00	A	C
ATOM	3616	O	VAL A 479	-9.784	-8.163	7.021	1.00	0.00	A	O
ATOM	3617	N	PRO A 480	-8.564	-8.062	5.184	1.00	0.00	A	N
ATOM	3618	CA	PRO A 480	-9.724	-7.926	4.342	1.00	0.00	A	C
ATOM	3619	CD	PRO A 480	-7.360	-7.549	4.550	1.00	0.00	A	C
ATOM	3620	CB	PRO A 480	-9.239	-7.215	3.077	1.00	0.00	A	C
ATOM	3621	CG	PRO A 480	-7.722	-7.457	3.061	1.00	0.00	A	C
ATOM	3622	C	PRO A 480	-10.314	-9.273	4.057	1.00	0.00	A	C
ATOM	3623	O	PRO A 480	-9.688	-10.284	4.370	1.00	0.00	A	O
ATOM	3624	N	PRO A 481	-11.494	-9.282	3.502	1.00	0.00	A	N
ATOM	3625	CA	PRO A 481	-12.139	-10.515	3.131	1.00	0.00	A	C
ATOM	3626	CD	PRO A 481	-12.461	-8.261	3.880	1.00	0.00	A	C
ATOM	3627	CB	PRO A 481	-13.623	-10.189	2.981	1.00	0.00	A	C
ATOM	3628	CG	PRO A 481	-13.829	-8.959	3.880	1.00	0.00	A	C
ATOM	3629	C	PRO A 481	-11.541	-11.040	1.861	1.00	0.00	A	C
ATOM	3630	O	PRO A 481	-10.785	-10.324	1.208	1.00	0.00	A	O
ATOM	3631	N	PHE A 482	-11.861	-12.298	1.500	1.00	0.00	A	N
ATOM	3632	CA	PHE A 482	-11.350	-12.890	0.298	1.00	0.00	A	C
ATOM	3633	CB	PHE A 482	-11.528	-14.429	0.286	1.00	0.00	A	C
ATOM	3634	CG	PHE A 482	-11.121	-15.031	-1.020	1.00	0.00	A	C
ATOM	3635	CD1	PHE A 482	-9.794	-15.255	-1.309	1.00	0.00	A	C
ATOM	3636	CD2	PHE A 482	-12.067	-15.370	-1.964	1.00	0.00	A	C
ATOM	3637	CE1	PHE A 482	-9.416	-15.811	-2.509	1.00	0.00	A	C
ATOM	3638	CE2	PHE A 482	-11.698	-15.923	-3.166	1.00	0.00	A	C
ATOM	3639	CZ	PHE A 482	-10.370	-16.140	-3.441	1.00	0.00	A	C
ATOM	3640	C	PHE A 482	-12.070	-12.299	-0.874	1.00	0.00	A	C
ATOM	3641	O	PHE A 482	-13.270	-12.037	-0.819	1.00	0.00	A	O
ATOM	3642	N	TYR A 483	-11.336	-12.044	-1.975	1.00	0.00	A	N
ATOM	3643	CA	TYR A 483	-11.990	-11.591	-3.166	1.00	0.00	A	C
ATOM	3644	CB	TYR A 483	-12.307	-10.075	-3.182	1.00	0.00	A	C
ATOM	3645	CG	TYR A 483	-11.052	-9.280	-3.327	1.00	0.00	A	C
ATOM	3646	CD1	TYR A 483	-10.199	-9.119	-2.259	1.00	0.00	A	C
ATOM	3647	CD2	TYR A 483	-10.736	-8.700	-4.540	1.00	0.00	A	C
ATOM	3648	CE1	TYR A 483	-9.042	-8.390	-2.408	1.00	0.00	A	C
ATOM	3649	CE2	TYR A 483	-9.588	-7.973	-4.695	1.00	0.00	A	C
ATOM	3650	CZ	TYR A 483	-8.742	-7.819	-3.628	1.00	0.00	A	C
ATOM	3651	OH	TYR A 483	-7.566	-7.071	-3.817	1.00	0.00	A	O
ATOM	3652	C	TYR A 483	-11.103	-11.939	-4.315	1.00	0.00	A	C
ATOM	3653	O	TYR A 483	-9.947	-12.307	-4.120	1.00	0.00	A	O
ATOM	3654	N	GLN A 484	-11.621	-11.825	-5.552	1.00	0.00	A	N
ATOM	3655	CA	GLN A 484	-10.844	-12.128	-6.719	1.00	0.00	A	C
ATOM	3656	CB	GLN A 484	-11.327	-13.389	-7.445	1.00	0.00	A	C
ATOM	3657	CG	GLN A 484	-11.265	-14.662	-6.607	1.00	0.00	A	C
ATOM	3658	CD	GLN A 484	-11.973	-15.732	-7.418	1.00	0.00	A	C
ATOM	3659	OE1	GLN A 484	-12.048	-16.897	-7.031	1.00	0.00	A	O
ATOM	3660	NE2	GLN A 484	-12.517	-15.317	-8.592	1.00	0.00	A	N
ATOM	3661	C	GLN A 484	-11.062	-11.015	-7.693	1.00	0.00	A	C
ATOM	3662	O	GLN A 484	-12.035	-10.270	-7.585	1.00	0.00	A	O
ATOM	3663	N	LEU A 485	-10.142	-10.860	-8.668	1.00	0.00	A	N
ATOM	3664	CA	LEU A 485	-10.308	-9.826	-9.653	1.00	0.00	A	C
ATOM	3665	CB	LEU A 485	-9.971	-8.390	-9.179	1.00	0.00	A	C
ATOM	3666	CG	LEU A 485	-8.479	-8.054	-8.952	1.00	0.00	A	C
ATOM	3667	CD2	LEU A 485	-7.814	-8.936	-7.886	1.00	0.00	A	C
ATOM	3668	CD1	LEU A 485	-8.303	-6.565	-8.608	1.00	0.00	A	C
ATOM	3669	C	LEU A 485	-9.429	-10.137	-10.827	1.00	0.00	A	C
ATOM	3670	O	LEU A 485	-8.530	-10.972	-10.744	1.00	0.00	A	O
ATOM	3671	N	CYS A 486	-9.689	-9.478	-11.978	1.00	0.00	A	N

Figure 7.

ATOM	3672	CA	CYS	A	486	-8.869	-9.741	-13.120	1.00	0.00	A	C
ATOM	3673	CB	CYS	A	486	-9.636	-10.322	-14.327	1.00	0.00	A	C
ATOM	3674	SG	CYS	A	486	-11.253	-9.550	-14.611	1.00	0.00	A	S
ATOM	3675	C	CYS	A	486	-8.121	-8.506	-13.494	1.00	0.00	A	C
ATOM	3676	O	CYS	A	486	-8.609	-7.386	-13.365	1.00	0.00	A	O
ATOM	3677	N	PHE	A	487	-6.865	-8.677	-13.941	1.00	0.00	A	N
ATOM	3678	CA	PHE	A	487	-6.127	-7.504	-14.283	1.00	0.00	A	C
ATOM	3679	CB	PHE	A	487	-4.641	-7.599	-13.894	1.00	0.00	A	C
ATOM	3680	CG	PHE	A	487	-4.559	-7.630	-12.403	1.00	0.00	A	C
ATOM	3681	CD1	PHE	A	487	-4.661	-8.817	-11.711	1.00	0.00	A	C
ATOM	3682	CD2	PHE	A	487	-4.385	-6.465	-11.691	1.00	0.00	A	C
ATOM	3683	CE1	PHE	A	487	-4.586	-8.840	-10.339	1.00	0.00	A	C
ATOM	3684	CE2	PHE	A	487	-4.308	-6.481	-10.319	1.00	0.00	A	C
ATOM	3685	CZ	PHE	A	487	-4.409	-7.671	-9.640	1.00	0.00	A	C
ATOM	3686	C	PHE	A	487	-6.218	-7.395	-15.764	1.00	0.00	A	C
ATOM	3687	O	PHE	A	487	-5.533	-8.107	-16.490	1.00	0.00	A	O
ATOM	3688	N	ILE	A	488	-7.060	-6.477	-16.268	1.00	0.00	A	N
ATOM	3689	CA	ILE	A	488	-7.212	-6.394	-17.691	1.00	0.00	A	C
ATOM	3690	CB	ILE	A	488	-8.627	-6.110	-18.089	1.00	0.00	A	C
ATOM	3691	CG2	ILE	A	488	-8.676	-5.886	-19.609	1.00	0.00	A	C
ATOM	3692	CG1	ILE	A	488	-9.509	-7.272	-17.598	1.00	0.00	A	C
ATOM	3693	CD1	ILE	A	488	-10.992	-6.941	-17.497	1.00	0.00	A	C
ATOM	3694	C	ILE	A	488	-6.333	-5.294	-18.162	1.00	0.00	A	C
ATOM	3695	O	ILE	A	488	-6.394	-4.201	-17.612	1.00	0.00	A	O
ATOM	3696	N	PRO	A	489	-5.509	-5.562	-19.146	1.00	0.00	A	N
ATOM	3697	CA	PRO	A	489	-4.574	-4.569	-19.611	1.00	0.00	A	C
ATOM	3698	CD	PRO	A	489	-4.998	-6.911	-19.342	1.00	0.00	A	C
ATOM	3699	CB	PRO	A	489	-3.591	-5.314	-20.512	1.00	0.00	A	C
ATOM	3700	CG	PRO	A	489	-3.592	-6.744	-19.943	1.00	0.00	A	C
ATOM	3701	C	PRO	A	489	-5.218	-3.382	-20.259	1.00	0.00	A	C
ATOM	3702	O	PRO	A	489	-6.249	-3.532	-20.911	1.00	0.00	A	O
ATOM	3703	N	VAL	A	490	-4.639	-2.189	-20.035	1.00	0.00	A	N
ATOM	3704	CA	VAL	A	490	-5.175	-0.984	-20.592	1.00	0.00	A	C
ATOM	3705	CB	VAL	A	490	-5.355	0.113	-19.581	1.00	0.00	A	C
ATOM	3706	CG1	VAL	A	490	-3.997	0.406	-18.926	1.00	0.00	A	C
ATOM	3707	CG2	VAL	A	490	-5.962	1.334	-20.293	1.00	0.00	A	C
ATOM	3708	C	VAL	A	490	-4.184	-0.494	-21.589	1.00	0.00	A	C
ATOM	3709	O	VAL	A	490	-3.850	-1.188	-22.548	1.00	0.00	A	O
TER												
HETATM	3710	FE	HEM	A	501	6.215	-1.510	10.365	1.00	0.00	A	F
HETATM	3711	NA	HEM	A	501	5.238	-0.813	11.908	1.00	0.00	A	N
HETATM	3712	NB	HEM	A	501	4.869	-0.717	9.168	1.00	0.00	A	N
HETATM	3713	NC	HEM	A	501	7.318	-1.912	8.785	1.00	0.00	A	N
HETATM	3714	ND	HEM	A	501	7.800	-1.754	11.497	1.00	0.00	A	N
HETATM	3715	C1A	HEM	A	501	5.648	-0.753	13.227	1.00	0.00	A	C
HETATM	3716	C2A	HEM	A	501	4.704	-0.030	14.043	1.00	0.00	A	C
HETATM	3717	C3A	HEM	A	501	3.648	0.232	13.245	1.00	0.00	A	C
HETATM	3718	C4A	HEM	A	501	4.010	-0.202	11.926	1.00	0.00	A	C
HETATM	3719	C1B	HEM	A	501	3.696	-0.096	9.520	1.00	0.00	A	C
HETATM	3720	C2B	HEM	A	501	2.880	0.215	8.370	1.00	0.00	A	C
HETATM	3721	C3B	HEM	A	501	3.565	-0.235	7.280	1.00	0.00	A	C
HETATM	3722	C4B	HEM	A	501	4.802	-0.781	7.800	1.00	0.00	A	C
HETATM	3723	C1C	HEM	A	501	6.959	-1.852	7.465	1.00	0.00	A	C
HETATM	3724	C2C	HEM	A	501	8.056	-2.210	6.590	1.00	0.00	A	C
HETATM	3725	C3C	HEM	A	501	9.132	-2.428	7.401	1.00	0.00	A	C
HETATM	3726	C4C	HEM	A	501	8.648	-2.257	8.748	1.00	0.00	A	C
HETATM	3727	C1D	HEM	A	501	9.074	-2.112	11.132	1.00	0.00	A	C
HETATM	3728	C2D	HEM	A	501	9.952	-2.224	12.271	1.00	0.00	A	C
HETATM	3729	C3D	HEM	A	501	9.211	-1.918	13.353	1.00	0.00	A	C
HETATM	3730	C4D	HEM	A	501	7.886	-1.624	12.870	1.00	0.00	A	C
HETATM	3731	CHA	HEM	A	501	6.875	-1.168	13.671	1.00	0.00	A	C
HETATM	3732	CHB	HEM	A	501	3.292	0.129	10.805	1.00	0.00	A	C
HETATM	3733	CHC	HEM	A	501	5.778	-1.325	7.007	1.00	0.00	A	C
HETATM	3734	CHD	HEM	A	501	9.464	-2.344	9.840	1.00	0.00	A	C
HETATM	3735	CMA	HEM	A	501	2.336	0.813	13.639	1.00	0.00	A	C
HETATM	3736	CAA	HEM	A	501	4.966	0.565	15.383	1.00	0.00	A	C
HETATM	3737	CBA	HEM	A	501	5.119	-0.424	16.532	1.00	0.00	A	C
HETATM	3738	CGA	HEM	A	501	5.312	0.444	17.769	1.00	0.00	A	C
HETATM	3739	O1A	HEM	A	501	6.161	0.089	18.628	1.00	0.00	A	O
HETATM	3740	O2A	HEM	A	501	4.617	1.489	17.866	1.00	0.00	A	O
HETATM	3741	CMB	HEM	A	501	1.562	0.917	8.464	1.00	0.00	A	C
HETATM	3742	CAB	HEM	A	501	3.227	-0.270	5.930	1.00	0.00	A	C
HETATM	3743	CBB	HEM	A	501	2.080	0.124	5.369	1.00	0.00	A	C
HETATM	3744	CMC	HEM	A	501	7.931	-2.345	5.106	1.00	0.00	A	C
HETATM	3745	CAC	HEM	A	501	10.465	-2.700	7.115	1.00	0.00	A	C

Figure 7

HETATM 3746	CBC HEM A 501	11.046	-2.740	5.915	1.00	0.00	A	C
HETATM 3747	CMD HEM A 501	11.392	-2.611	12.257	1.00	0.00	A	C
HETATM 3748	CAD HEM A 501	9.671	-1.856	14.772	1.00	0.00	A	C
HETATM 3749	CBD HEM A 501	9.985	-0.427	15.224	1.00	0.00	A	C
HETATM 3750	CGD HEM A 501	10.470	-0.461	16.665	1.00	0.00	A	C
HETATM 3751	O1D HEM A 501	11.642	-0.081	16.912	1.00	0.00	A	O
HETATM 3752	O2D HEM A 501	9.671	-0.871	17.543	1.00	0.00	A	O

END

491/514

Figure 8

Table 19

ATOM	8	N	SER	A	31	9.736	63.854	49.703	1.00	0.00	A	N
ATOM	9	CA	SER	A	31	9.926	64.926	50.648	1.00	0.00	A	C
ATOM	10	CB	SER	A	31	11.179	64.699	51.522	1.00	0.00	A	C
ATOM	11	OG	SER	A	31	11.213	65.582	52.635	1.00	0.00	A	O
ATOM	12	C	SER	A	31	10.081	66.214	49.889	1.00	0.00	A	C
ATOM	13	O	SER	A	31	10.135	66.209	48.670	1.00	0.00	A	O
ATOM	54	N	ILE	A	38	-1.691	79.606	49.752	1.00	0.00	A	N
ATOM	55	CA	ILE	A	38	-1.990	79.922	48.375	1.00	0.00	A	C
ATOM	56	CB	ILE	A	38	-2.508	81.324	48.227	1.00	0.00	A	C
ATOM	57	CG2	ILE	A	38	-2.688	81.625	46.729	1.00	0.00	A	C
ATOM	58	CG1	ILE	A	38	-3.800	81.503	49.042	1.00	0.00	A	C
ATOM	59	CD1	ILE	A	38	-4.233	82.961	49.184	1.00	0.00	A	C
ATOM	60	C	ILE	A	38	-0.817	79.793	47.444	1.00	0.00	A	C
ATOM	61	O	ILE	A	38	-0.880	79.195	46.369	1.00	0.00	A	O
ATOM	107	N	LEU	A	45	11.288	78.658	45.498	1.00	0.00	A	N
ATOM	108	CA	LEU	A	45	11.681	78.446	44.125	1.00	0.00	A	C
ATOM	109	CB	LEU	A	45	10.620	77.648	43.352	1.00	0.00	A	C
ATOM	110	CG	LEU	A	45	11.031	77.295	41.916	1.00	0.00	A	C
ATOM	111	CD2	LEU	A	45	9.841	76.728	41.126	1.00	0.00	A	C
ATOM	112	CD1	LEU	A	45	12.254	76.363	41.913	1.00	0.00	A	C
ATOM	113	C	LEU	A	45	11.911	79.726	43.386	1.00	0.00	A	C
ATOM	114	O	LEU	A	45	12.797	79.762	42.534	1.00	0.00	A	O
ATOM	115	N	ASP	A	46	11.087	80.767	43.655	1.00	0.00	A	N
ATOM	116	CA	ASP	A	46	11.180	82.079	43.050	1.00	0.00	A	C
ATOM	117	CB	ASP	A	46	12.622	82.693	43.140	1.00	0.00	A	C
ATOM	118	CG	ASP	A	46	12.728	84.199	42.944	1.00	0.00	A	C
ATOM	119	OD1	ASP	A	46	12.192	84.972	43.782	1.00	0.00	A	O
ATOM	120	OD2	ASP	A	46	13.356	84.584	41.921	1.00	0.00	A	O
ATOM	121	C	ASP	A	46	10.614	82.028	41.640	1.00	0.00	A	C
ATOM	122	O	ASP	A	46	10.039	81.024	41.214	1.00	0.00	A	O
ATOM	123	N	VAL	A	47	10.531	83.213	40.999	1.00	0.00	A	N
ATOM	124	CA	VAL	A	47	10.137	83.514	39.647	1.00	0.00	A	C
ATOM	125	CB	VAL	A	47	9.474	84.857	39.534	1.00	0.00	A	C
ATOM	126	CG1	VAL	A	47	8.170	84.823	40.349	1.00	0.00	A	C
ATOM	127	CG2	VAL	A	47	10.463	85.943	39.991	1.00	0.00	A	C
ATOM	128	C	VAL	A	47	11.277	83.498	38.659	1.00	0.00	A	C
ATOM	129	O	VAL	A	47	11.041	83.343	37.459	1.00	0.00	A	O
ATOM	147	N	MET	A	50	14.532	79.499	38.222	1.00	0.00	A	N
ATOM	148	CA	MET	A	50	13.844	78.448	38.924	1.00	0.00	A	C
ATOM	149	CB	MET	A	50	12.578	78.003	38.170	1.00	0.00	A	C
ATOM	150	CG	MET	A	50	12.004	76.675	38.660	1.00	0.00	A	C
ATOM	151	SD	MET	A	50	10.541	76.087	37.755	1.00	0.00	A	S
ATOM	152	CE	MET	A	50	10.690	74.386	38.373	1.00	0.00	A	C
ATOM	153	C	MET	A	50	14.747	77.256	38.962	1.00	0.00	A	C
ATOM	154	O	MET	A	50	14.767	76.516	39.943	1.00	0.00	A	O
ATOM	199	N	PHE	A	57	17.746	72.929	46.226	1.00	0.00	A	N
ATOM	200	CA	PHE	A	57	16.752	72.143	46.887	1.00	0.00	A	C
ATOM	201	CB	PHE	A	57	15.355	72.109	46.240	1.00	0.00	A	C
ATOM	202	CG	PHE	A	57	14.736	73.430	46.485	1.00	0.00	A	C
ATOM	203	CD1	PHE	A	57	14.676	73.917	47.768	1.00	0.00	A	C
ATOM	204	CD2	PHE	A	57	14.164	74.133	45.455	1.00	0.00	A	C
ATOM	205	CE1	PHE	A	57	14.104	75.139	48.012	1.00	0.00	A	C
ATOM	206	CE2	PHE	A	57	13.592	75.356	45.688	1.00	0.00	A	C
ATOM	207	CZ	PHE	A	57	13.574	75.850	46.965	1.00	0.00	A	C
ATOM	208	C	PHE	A	57	17.177	70.726	46.925	1.00	0.00	A	C
ATOM	209	O	PHE	A	57	16.896	70.059	47.908	1.00	0.00	A	O
ATOM	280	N	VAL	A	67	7.706	69.754	44.844	1.00	0.00	A	N
ATOM	281	CA	VAL	A	67	7.676	71.191	44.865	1.00	0.00	A	C
ATOM	282	CB	VAL	A	67	8.641	71.771	43.853	1.00	0.00	A	C
ATOM	283	CG1	VAL	A	67	8.623	73.312	43.861	1.00	0.00	A	C
ATOM	284	CG2	VAL	A	67	10.027	71.184	44.151	1.00	0.00	A	C
ATOM	285	C	VAL	A	67	6.282	71.614	44.497	1.00	0.00	A	C
ATOM	286	O	VAL	A	67	5.610	70.934	43.737	1.00	0.00	A	O
ATOM	462	N	HIS	A	90	12.355	53.260	33.477	1.00	0.00	A	N
ATOM	463	CA	HIS	A	90	10.972	53.538	33.715	1.00	0.00	A	C
ATOM	464	ND1	HIS	A	90	12.160	53.614	36.917	1.00	0.00	A	N

Figure 8

ATOM	465	CG	HIS	A	90	10.966	53.630	36.233	1.00	0.00	A	C
ATOM	466	CB	HIS	A	90	10.720	54.396	34.966	1.00	0.00	A	C
ATOM	467	NE2	HIS	A	90	10.767	52.290	38.038	1.00	0.00	A	N
ATOM	468	CD2	HIS	A	90	10.127	52.815	36.932	1.00	0.00	A	C
ATOM	469	CE1	HIS	A	90	11.986	52.797	37.988	1.00	0.00	A	C
ATOM	470	C	HIS	A	90	10.355	54.217	32.538	1.00	0.00	A	C
ATOM	471	O	HIS	A	90	9.308	54.830	32.723	1.00	0.00	A	O
ATOM	530	N	SER	A	99	1.319	69.192	31.322	1.00	0.00	A	N
ATOM	531	CA	SER	A	99	1.046	70.524	30.872	1.00	0.00	A	C
ATOM	532	CB	SER	A	99	-0.184	70.617	29.954	1.00	0.00	A	C
ATOM	533	OG	SER	A	99	-0.390	71.963	29.549	1.00	0.00	A	O
ATOM	534	C	SER	A	99	0.780	71.420	32.046	1.00	0.00	A	C
ATOM	535	O	SER	A	99	0.081	71.054	32.987	1.00	0.00	A	O
ATOM	554	N	VAL	A	102	-0.666	77.870	31.818	1.00	0.00	A	N
ATOM	555	CA	VAL	A	102	-0.617	78.832	30.742	1.00	0.00	A	C
ATOM	556	CB	VAL	A	102	0.687	79.572	30.690	1.00	0.00	A	C
ATOM	557	CG1	VAL	A	102	0.645	80.562	29.515	1.00	0.00	A	C
ATOM	558	CG2	VAL	A	102	0.984	80.184	32.062	1.00	0.00	A	C
ATOM	559	C	VAL	A	102	-0.655	78.107	29.445	1.00	0.00	A	C
ATOM	560	O	VAL	A	102	-1.495	78.359	28.587	1.00	0.00	A	O
ATOM	575	N	LYS	A	105	-4.023	76.759	28.313	1.00	0.00	A	N
ATOM	576	CA	LYS	A	105	-4.949	77.763	27.868	1.00	0.00	A	C
ATOM	577	CB	LYS	A	105	-4.862	79.006	28.749	1.00	0.00	A	C
ATOM	578	CG	LYS	A	105	-5.424	78.817	30.155	1.00	0.00	A	C
ATOM	579	CD	LYS	A	105	-6.936	78.606	30.178	1.00	0.00	A	C
ATOM	580	CE	LYS	A	105	-7.534	78.730	31.576	1.00	0.00	A	C
ATOM	581	NZ	LYS	A	105	-8.993	78.946	31.475	1.00	0.00	A	N
ATOM	582	C	LYS	A	105	-4.583	78.168	26.477	1.00	0.00	A	C
ATOM	583	O	LYS	A	105	-5.442	78.414	25.632	1.00	0.00	A	O
ATOM	584	N	VAL	A	106	-3.268	78.246	26.234	1.00	0.00	A	N
ATOM	585	CA	VAL	A	106	-2.657	78.609	24.990	1.00	0.00	A	C
ATOM	586	CB	VAL	A	106	-1.149	78.504	25.102	1.00	0.00	A	C
ATOM	587	CG1	VAL	A	106	-0.496	78.488	23.709	1.00	0.00	A	C
ATOM	588	CG2	VAL	A	106	-0.624	79.640	25.992	1.00	0.00	A	C
ATOM	589	C	VAL	A	106	-3.036	77.634	23.915	1.00	0.00	A	C
ATOM	590	O	VAL	A	106	-3.351	78.020	22.790	1.00	0.00	A	O
ATOM	599	N	LYS	A	108	-4.940	75.039	21.646	1.00	0.00	A	N
ATOM	600	CA	LYS	A	108	-6.190	74.500	21.222	1.00	0.00	A	C
ATOM	601	CB	LYS	A	108	-7.070	75.551	20.526	1.00	0.00	A	C
ATOM	602	CG	LYS	A	108	-8.572	75.280	20.603	1.00	0.00	A	C
ATOM	603	CD	LYS	A	108	-9.144	75.561	21.995	1.00	0.00	A	C
ATOM	604	CE	LYS	A	108	-10.673	75.560	22.053	1.00	0.00	A	C
ATOM	605	NZ	LYS	A	108	-11.124	75.906	23.419	1.00	0.00	A	N
ATOM	606	C	LYS	A	108	-5.816	73.477	20.187	1.00	0.00	A	C
ATOM	607	O	LYS	A	108	-5.478	73.823	19.057	1.00	0.00	A	O
ATOM	612	N	LEU	A	110	-4.041	69.305	19.856	1.00	0.00	A	N
ATOM	613	CA	LEU	A	110	-2.779	68.702	20.165	1.00	0.00	A	C
ATOM	614	CB	LEU	A	110	-2.879	67.646	21.276	1.00	0.00	A	C
ATOM	615	CG	LEU	A	110	-3.448	68.202	22.595	1.00	0.00	A	C
ATOM	616	CD2	LEU	A	110	-2.792	69.540	22.973	1.00	0.00	A	C
ATOM	617	CD1	LEU	A	110	-3.385	67.157	23.720	1.00	0.00	A	C
ATOM	618	C	LEU	A	110	-2.235	68.022	18.955	1.00	0.00	A	C
ATOM	619	O	LEU	A	110	-2.978	67.467	18.149	1.00	0.00	A	O
ATOM	632	N	LEU	A	113	3.751	67.734	20.398	1.00	0.00	A	N
ATOM	633	CA	LEU	A	113	4.395	68.171	21.607	1.00	0.00	A	C
ATOM	634	CB	LEU	A	113	4.709	69.674	21.576	1.00	0.00	A	C
ATOM	635	CG	LEU	A	113	5.562	70.106	22.774	1.00	0.00	A	C
ATOM	636	CD2	LEU	A	113	5.728	71.634	22.836	1.00	0.00	A	C
ATOM	637	CD1	LEU	A	113	6.899	69.350	22.753	1.00	0.00	A	C
ATOM	638	C	LEU	A	113	3.580	67.909	22.839	1.00	0.00	A	C
ATOM	639	O	LEU	A	113	4.105	67.445	23.846	1.00	0.00	A	O
ATOM	678	N	ARG	A	119	-2.604	58.930	20.334	1.00	0.00	A	N
ATOM	679	CA	ARG	A	119	-2.477	60.043	19.436	1.00	0.00	A	C
ATOM	680	CB	ARG	A	119	-3.291	61.273	19.875	1.00	0.00	A	C
ATOM	681	CG	ARG	A	119	-3.312	62.382	18.821	1.00	0.00	A	C
ATOM	682	CD	ARG	A	119	-4.214	63.567	19.173	1.00	0.00	A	C
ATOM	683	NE	ARG	A	119	-4.190	64.499	18.012	1.00	0.00	A	N
ATOM	684	CZ	ARG	A	119	-5.225	65.364	17.806	1.00	0.00	A	C

493/514

Figure 8

ATOM	685	NH1	ARG	A	119	-6.266	65.403	18.689	1.00	0.00	A	N
ATOM	686	NH2	ARG	A	119	-5.226	66.181	16.714	1.00	0.00	A	N
ATOM	687	C	ARG	A	119	-1.046	60.462	19.334	1.00	0.00	A	C
ATOM	688	O	ARG	A	119	-0.532	60.664	18.234	1.00	0.00	A	O
ATOM	762	N	CYS	A	127	6.144	60.899	12.343	1.00	0.00	A	N
ATOM	763	CA	CYS	A	127	6.968	62.043	12.104	1.00	0.00	A	C
ATOM	764	CB	CYS	A	127	6.710	63.228	13.036	1.00	0.00	A	C
ATOM	765	SG	CYS	A	127	7.229	64.739	12.178	1.00	0.00	A	S
ATOM	766	C	CYS	A	127	8.426	61.698	12.088	1.00	0.00	A	C
ATOM	767	O	CYS	A	127	9.181	62.306	11.332	1.00	0.00	A	O
ATOM	1031	N	ASN	A	160	28.218	92.763	4.378	1.00	0.00	A	N
ATOM	1032	CA	ASN	A	160	29.317	93.538	3.882	1.00	0.00	A	C
ATOM	1033	CB	ASN	A	160	28.882	94.873	3.252	1.00	0.00	A	C
ATOM	1034	CG	ASN	A	160	28.186	94.551	1.936	1.00	0.00	A	C
ATOM	1035	OD1	ASN	A	160	27.394	95.340	1.424	1.00	0.00	A	O
ATOM	1036	ND2	ASN	A	160	28.490	93.351	1.372	1.00	0.00	A	N
ATOM	1037	C	ASN	A	160	30.304	93.815	4.962	1.00	0.00	A	C
ATOM	1038	O	ASN	A	160	30.984	94.839	4.938	1.00	0.00	A	O
ATOM	1175	N	VAL	A	181	11.086	71.181	4.800	1.00	0.00	A	N
ATOM	1176	CA	VAL	A	181	10.644	69.832	5.053	1.00	0.00	A	C
ATOM	1177	CB	VAL	A	181	11.109	69.215	6.356	1.00	0.00	A	C
ATOM	1178	CG1	VAL	A	181	12.645	69.258	6.369	1.00	0.00	A	C
ATOM	1179	CG2	VAL	A	181	10.435	69.854	7.577	1.00	0.00	A	C
ATOM	1180	C	VAL	A	181	9.136	69.710	4.931	1.00	0.00	A	C
ATOM	1181	O	VAL	A	181	8.625	68.689	4.477	1.00	0.00	A	O
ATOM	1211	N	ASP	A	185	9.739	73.264	-0.272	1.00	0.00	A	N
ATOM	1212	CA	ASP	A	185	10.531	74.286	-0.893	1.00	0.00	A	C
ATOM	1213	CB	ASP	A	185	9.795	74.954	-2.070	1.00	0.00	A	C
ATOM	1214	CG	ASP	A	185	10.756	75.820	-2.873	1.00	0.00	A	C
ATOM	1215	OD1	ASP	A	185	11.994	75.640	-2.730	1.00	0.00	A	O
ATOM	1216	OD2	ASP	A	185	10.256	76.671	-3.657	1.00	0.00	A	O
ATOM	1217	C	ASP	A	185	10.784	75.345	0.131	1.00	0.00	A	C
ATOM	1218	O	ASP	A	185	9.893	75.701	0.899	1.00	0.00	A	O
ATOM	1287	N	ARG	A	193	5.547	85.782	2.771	1.00	0.00	A	N
ATOM	1288	CA	ARG	A	193	4.883	84.678	3.421	1.00	0.00	A	C
ATOM	1289	CB	ARG	A	193	4.668	83.506	2.452	1.00	0.00	A	C
ATOM	1290	CG	ARG	A	193	3.791	83.862	1.248	1.00	0.00	A	C
ATOM	1291	CD	ARG	A	193	3.875	82.821	0.130	1.00	0.00	A	C
ATOM	1292	NE	ARG	A	193	2.908	83.201	-0.937	1.00	0.00	A	N
ATOM	1293	CZ	ARG	A	193	2.874	82.488	-2.100	1.00	0.00	A	C
ATOM	1294	NH1	ARG	A	193	3.744	81.455	-2.293	1.00	0.00	A	N
ATOM	1295	NH2	ARG	A	193	1.967	82.803	-3.072	1.00	0.00	A	N
ATOM	1296	C	ARG	A	193	5.777	84.180	4.510	1.00	0.00	A	C
ATOM	1297	O	ARG	A	193	5.338	83.882	5.620	1.00	0.00	A	O
ATOM	1359	N	PHE	A	201	6.285	83.517	14.872	1.00	0.00	A	N
ATOM	1360	CA	PHE	A	201	7.034	82.675	15.772	1.00	0.00	A	C
ATOM	1361	CB	PHE	A	201	8.175	81.859	15.153	1.00	0.00	A	C
ATOM	1362	CG	PHE	A	201	7.551	80.961	14.174	1.00	0.00	A	C
ATOM	1363	CD1	PHE	A	201	6.458	80.223	14.544	1.00	0.00	A	C
ATOM	1364	CD2	PHE	A	201	8.100	80.820	12.926	1.00	0.00	A	C
ATOM	1365	CE1	PHE	A	201	5.871	79.387	13.638	1.00	0.00	A	C
ATOM	1366	CE2	PHE	A	201	7.514	79.981	12.020	1.00	0.00	A	C
ATOM	1367	CZ	PHE	A	201	6.395	79.274	12.373	1.00	0.00	A	C
ATOM	1368	C	PHE	A	201	7.744	83.489	16.803	1.00	0.00	A	C
ATOM	1369	O	PHE	A	201	7.748	83.125	17.978	1.00	0.00	A	O
ATOM	1395	N	LEU	A	205	7.738	83.765	20.992	1.00	0.00	A	N
ATOM	1396	CA	LEU	A	205	8.910	83.598	21.809	1.00	0.00	A	C
ATOM	1397	CB	LEU	A	205	10.223	83.626	21.012	1.00	0.00	A	C
ATOM	1398	CG	LEU	A	205	11.465	83.580	21.921	1.00	0.00	A	C
ATOM	1399	CD2	LEU	A	205	12.758	83.763	21.111	1.00	0.00	A	C
ATOM	1400	CD1	LEU	A	205	11.476	82.314	22.793	1.00	0.00	A	C
ATOM	1401	C	LEU	A	205	8.994	84.700	22.823	1.00	0.00	A	C
ATOM	1402	O	LEU	A	205	9.359	84.463	23.973	1.00	0.00	A	O
ATOM	1403	N	ARG	A	206	8.669	85.937	22.406	1.00	0.00	A	N
ATOM	1404	CA	ARG	A	206	8.746	87.086	23.263	1.00	0.00	A	C
ATOM	1405	CB	ARG	A	206	8.522	88.405	22.502	1.00	0.00	A	C
ATOM	1406	CG	ARG	A	206	8.724	89.652	23.366	1.00	0.00	A	C
ATOM	1407	CD	ARG	A	206	8.501	90.963	22.609	1.00	0.00	A	C

Figure 8

ATOM	1408	NE	ARG	A	206	8.734	92.078	23.568	1.00	0.00	A	N
ATOM	1409	CZ	ARG	A	206	9.140	93.299	23.110	1.00	0.00	A	C
ATOM	1410	NH1	ARG	A	206	9.337	93.495	21.774	1.00	0.00	A	N
ATOM	1411	NH2	ARG	A	206	9.354	94.322	23.989	1.00	0.00	A	N
ATOM	1412	C	ARG	A	206	7.725	87.014	24.357	1.00	0.00	A	C
ATOM	1413	O	ARG	A	206	8.016	87.402	25.490	1.00	0.00	A	O
ATOM	1487	N	CYS	A	216	1.606	82.875	36.294	1.00	0.00	A	N
ATOM	1488	CA	CYS	A	216	0.401	82.224	35.882	1.00	0.00	A	C
ATOM	1489	CB	CYS	A	216	0.156	82.338	34.374	1.00	0.00	A	C
ATOM	1490	SG	CYS	A	216	-1.473	81.693	33.894	1.00	0.00	A	S
ATOM	1491	C	CYS	A	216	0.390	80.769	36.283	1.00	0.00	A	C
ATOM	1492	O	CYS	A	216	-0.667	80.236	36.614	1.00	0.00	A	O
ATOM	1540	N	ILE	A	223	-5.052	83.867	35.121	1.00	0.00	A	N
ATOM	1541	CA	ILE	A	223	-5.178	83.837	33.684	1.00	0.00	A	C
ATOM	1542	CB	ILE	A	223	-4.905	82.468	33.091	1.00	0.00	A	C
ATOM	1543	CG2	ILE	A	223	-6.121	81.536	33.224	1.00	0.00	A	C
ATOM	1544	CG1	ILE	A	223	-4.430	82.621	31.641	1.00	0.00	A	C
ATOM	1545	CD1	ILE	A	223	-3.660	81.394	31.154	1.00	0.00	A	C
ATOM	1546	C	ILE	A	223	-6.514	84.421	33.271	1.00	0.00	A	C
ATOM	1547	O	ILE	A	223	-6.591	85.135	32.274	1.00	0.00	A	O
ATOM	1568	N	LEU	A	226	-6.202	88.133	33.542	1.00	0.00	A	N
ATOM	1569	CA	LEU	A	226	-5.457	88.716	32.456	1.00	0.00	A	C
ATOM	1570	CB	LEU	A	226	-3.963	88.944	32.766	1.00	0.00	A	C
ATOM	1571	CG	LEU	A	226	-3.648	90.004	33.848	1.00	0.00	A	C
ATOM	1572	CD2	LEU	A	226	-4.003	89.541	35.271	1.00	0.00	A	C
ATOM	1573	CD1	LEU	A	226	-4.240	91.372	33.473	1.00	0.00	A	C
ATOM	1574	C	LEU	A	226	-5.508	87.798	31.264	1.00	0.00	A	C
ATOM	1575	O	LEU	A	226	-4.601	86.990	31.068	1.00	0.00	A	O
ATOM	1587	N	SER	A	229	-2.243	87.555	27.706	1.00	0.00	A	N
ATOM	1588	CA	SER	A	229	-1.326	86.554	27.258	1.00	0.00	A	C
ATOM	1589	CB	SER	A	229	-0.234	86.226	28.290	1.00	0.00	A	C
ATOM	1590	OG	SER	A	229	0.639	85.228	27.785	1.00	0.00	A	O
ATOM	1591	C	SER	A	229	-2.202	85.361	27.117	1.00	0.00	A	C
ATOM	1592	O	SER	A	229	-3.070	85.183	27.959	1.00	0.00	A	O
ATOM	1620	N	ILE	A	233	-1.218	84.302	21.950	1.00	0.00	A	N
ATOM	1621	CA	ILE	A	233	-0.656	83.068	21.491	1.00	0.00	A	C
ATOM	1622	CB	ILE	A	233	0.050	82.251	22.531	1.00	0.00	A	C
ATOM	1623	CG2	ILE	A	233	-0.979	81.710	23.503	1.00	0.00	A	C
ATOM	1624	CG1	ILE	A	233	0.906	81.164	21.859	1.00	0.00	A	C
ATOM	1625	CD1	ILE	A	233	1.920	80.516	22.801	1.00	0.00	A	C
ATOM	1626	C	ILE	A	233	-1.666	82.263	20.724	1.00	0.00	A	C
ATOM	1627	O	ILE	A	233	-1.305	81.604	19.750	1.00	0.00	A	O
ATOM	1628	N	ALA	A	234	-2.947	82.293	21.154	1.00	0.00	A	N
ATOM	1629	CA	ALA	A	234	-4.017	81.568	20.529	1.00	0.00	A	C
ATOM	1630	CB	ALA	A	234	-5.350	81.694	21.287	1.00	0.00	A	C
ATOM	1631	C	ALA	A	234	-4.234	82.121	19.158	1.00	0.00	A	C
ATOM	1632	O	ALA	A	234	-4.453	81.376	18.205	1.00	0.00	A	O
ATOM	1633	N	GLU	A	235	-4.175	83.461	19.041	1.00	0.00	A	N
ATOM	1634	CA	GLU	A	235	-4.391	84.139	17.800	1.00	0.00	A	C
ATOM	1635	CB	GLU	A	235	-4.471	85.666	17.964	1.00	0.00	A	C
ATOM	1636	CG	GLU	A	235	-4.856	86.397	16.676	1.00	0.00	A	C
ATOM	1637	CD	GLU	A	235	-4.921	87.887	16.980	1.00	0.00	A	C
ATOM	1638	OE1	GLU	A	235	-4.670	88.264	18.157	1.00	0.00	A	O
ATOM	1639	OE2	GLU	A	235	-5.225	88.669	16.040	1.00	0.00	A	O
ATOM	1640	C	GLU	A	235	-3.277	83.838	16.847	1.00	0.00	A	C
ATOM	1641	O	GLU	A	235	-3.517	83.622	15.660	1.00	0.00	A	O
ATOM	1650	N	PHE	A	237	-1.220	81.252	16.832	1.00	0.00	A	N
ATOM	1651	CA	PHE	A	237	-1.270	79.842	16.561	1.00	0.00	A	C
ATOM	1652	CB	PHE	A	237	-1.777	79.139	17.835	1.00	0.00	A	C
ATOM	1653	CG	PHE	A	237	-1.629	77.662	17.794	1.00	0.00	A	C
ATOM	1654	CD1	PHE	A	237	-0.450	77.070	18.180	1.00	0.00	A	C
ATOM	1655	CD2	PHE	A	237	-2.679	76.868	17.405	1.00	0.00	A	C
ATOM	1656	CE1	PHE	A	237	-0.319	75.702	18.156	1.00	0.00	A	C
ATOM	1657	CE2	PHE	A	237	-2.556	75.500	17.377	1.00	0.00	A	C
ATOM	1658	CZ	PHE	A	237	-1.371	74.915	17.753	1.00	0.00	A	C
ATOM	1659	C	PHE	A	237	-2.283	79.651	15.469	1.00	0.00	A	C
ATOM	1660	O	PHE	A	237	-2.105	78.848	14.553	1.00	0.00	A	O
ATOM	1666	N	TYR	A	239	-3.162	81.905	13.279	1.00	0.00	A	N

Figure 8

ATOM	1667	CA	TYR A 239	-2.645	82.509	12.081	1.00	0.00	A	C
ATOM	1668	CB	TYR A 239	-1.790	83.759	12.390	1.00	0.00	A	C
ATOM	1669	CG	TYR A 239	-1.262	84.376	11.131	1.00	0.00	A	C
ATOM	1670	CD1	TYR A 239	-2.063	85.208	10.383	1.00	0.00	A	C
ATOM	1671	CD2	TYR A 239	0.026	84.137	10.693	1.00	0.00	A	C
ATOM	1672	CE1	TYR A 239	-1.595	85.784	9.226	1.00	0.00	A	C
ATOM	1673	CE2	TYR A 239	0.499	84.709	9.537	1.00	0.00	A	C
ATOM	1674	CZ	TYR A 239	-0.314	85.536	8.800	1.00	0.00	A	C
ATOM	1675	OH	TYR A 239	0.165	86.127	7.611	1.00	0.00	A	O
ATOM	1676	C	TYR A 239	-1.789	81.511	11.361	1.00	0.00	A	C
ATOM	1677	O	TYR A 239	-1.915	81.365	10.143	1.00	0.00	A	O
ATOM	1678	N	ILE A 240	-0.903	80.805	12.102	1.00	0.00	A	N
ATOM	1679	CA	ILE A 240	-0.025	79.847	11.487	1.00	0.00	A	C
ATOM	1680	CB	ILE A 240	1.158	79.357	12.309	1.00	0.00	A	C
ATOM	1681	CG2	ILE A 240	0.722	78.532	13.523	1.00	0.00	A	C
ATOM	1682	CG1	ILE A 240	2.114	78.576	11.387	1.00	0.00	A	C
ATOM	1683	CD1	ILE A 240	3.351	78.021	12.077	1.00	0.00	A	C
ATOM	1684	C	ILE A 240	-0.788	78.671	10.952	1.00	0.00	A	C
ATOM	1685	O	ILE A 240	-0.472	78.214	9.853	1.00	0.00	A	O
ATOM	1713	N	VAL A 244	-0.792	77.324	7.096	1.00	0.00	A	N
ATOM	1714	CA	VAL A 244	-0.434	75.988	6.744	1.00	0.00	A	C
ATOM	1715	CB	VAL A 244	0.171	75.162	7.852	1.00	0.00	A	C
ATOM	1716	CG1	VAL A 244	1.497	75.827	8.257	1.00	0.00	A	C
ATOM	1717	CG2	VAL A 244	-0.807	74.999	9.014	1.00	0.00	A	C
ATOM	1718	C	VAL A 244	-1.563	75.271	6.080	1.00	0.00	A	C
ATOM	1719	O	VAL A 244	-1.297	74.502	5.166	1.00	0.00	A	O
ATOM	1737	N	ARG A 247	-1.705	75.926	2.644	1.00	0.00	A	N
ATOM	1738	CA	ARG A 247	-0.667	75.164	2.014	1.00	0.00	A	C
ATOM	1739	CB	ARG A 247	0.632	75.099	2.825	1.00	0.00	A	C
ATOM	1740	CG	ARG A 247	1.701	76.066	2.325	1.00	0.00	A	C
ATOM	1741	CD	ARG A 247	1.325	77.542	2.332	1.00	0.00	A	C
ATOM	1742	NE	ARG A 247	2.527	78.239	1.803	1.00	0.00	A	N
ATOM	1743	CZ	ARG A 247	2.414	79.141	0.788	1.00	0.00	A	C
ATOM	1744	NH1	ARG A 247	1.186	79.505	0.321	1.00	0.00	A	N
ATOM	1745	NH2	ARG A 247	3.545	79.657	0.226	1.00	0.00	A	N
ATOM	1746	C	ARG A 247	-1.076	73.753	1.737	1.00	0.00	A	C
ATOM	1747	O	ARG A 247	-0.790	73.246	0.656	1.00	0.00	A	O
ATOM	1748	N	ILE A 248	-1.752	73.099	2.700	1.00	0.00	A	N
ATOM	1749	CA	ILE A 248	-2.174	71.726	2.669	1.00	0.00	A	C
ATOM	1750	CB	ILE A 248	-2.849	71.329	3.962	1.00	0.00	A	C
ATOM	1751	CG2	ILE A 248	-3.376	69.885	3.866	1.00	0.00	A	C
ATOM	1752	CG1	ILE A 248	-1.877	71.513	5.138	1.00	0.00	A	C
ATOM	1753	CD1	ILE A 248	-2.567	71.502	6.503	1.00	0.00	A	C
ATOM	1754	C	ILE A 248	-3.146	71.570	1.548	1.00	0.00	A	C
ATOM	1755	O	ILE A 248	-3.180	70.525	0.903	1.00	0.00	A	O
ATOM	1808	N	LEU A 255	-1.111	66.925	-5.424	1.00	0.00	A	N
ATOM	1809	CA	LEU A 255	-0.533	65.781	-4.784	1.00	0.00	A	C
ATOM	1810	CB	LEU A 255	-1.347	65.303	-3.561	1.00	0.00	A	C
ATOM	1811	CG	LEU A 255	-0.775	64.073	-2.829	1.00	0.00	A	C
ATOM	1812	CD2	LEU A 255	-1.764	63.535	-1.782	1.00	0.00	A	C
ATOM	1813	CD1	LEU A 255	0.613	64.371	-2.239	1.00	0.00	A	C
ATOM	1814	C	LEU A 255	-0.471	64.646	-5.741	1.00	0.00	A	C
ATOM	1815	O	LEU A 255	-1.354	64.464	-6.579	1.00	0.00	A	O
ATOM	1840	N	SER A 259	4.791	59.463	-4.935	1.00	0.00	A	N
ATOM	1841	CA	SER A 259	5.845	60.399	-5.157	1.00	0.00	A	C
ATOM	1842	CB	SER A 259	5.806	61.007	-6.575	1.00	0.00	A	C
ATOM	1843	OG	SER A 259	7.001	61.727	-6.850	1.00	0.00	A	O
ATOM	1844	C	SER A 259	5.682	61.514	-4.161	1.00	0.00	A	C
ATOM	1845	O	SER A 259	5.634	62.687	-4.528	1.00	0.00	A	O
ATOM	1846	N	ALA A 260	5.613	61.182	-2.855	1.00	0.00	A	N
ATOM	1847	CA	ALA A 260	5.493	62.222	-1.868	1.00	0.00	A	C
ATOM	1848	CB	ALA A 260	5.072	61.703	-0.483	1.00	0.00	A	C
ATOM	1849	C	ALA A 260	6.830	62.886	-1.721	1.00	0.00	A	C
ATOM	1850	O	ALA A 260	7.859	62.221	-1.606	1.00	0.00	A	O
ATOM	1851	N	ARG A 261	6.830	64.229	-1.845	1.00	0.00	A	N
ATOM	1852	CA	ARG A 261	7.941	65.138	-1.719	1.00	0.00	A	C
ATOM	1853	CB	ARG A 261	7.689	66.390	-2.570	1.00	0.00	A	C
ATOM	1854	CG	ARG A 261	7.332	66.081	-4.025	1.00	0.00	A	C
ATOM	1855	CD	ARG A 261	8.523	65.701	-4.905	1.00	0.00	A	C
ATOM	1856	NE	ARG A 261	7.984	65.434	-6.269	1.00	0.00	A	N
ATOM	1857	CZ	ARG A 261	8.829	65.314	-7.334	1.00	0.00	A	C

496/514

Figure 8

ATOM	1858	NH1	ARG	A	261	10.176	65.437	-7.153	1.00	0.00	A	N
ATOM	1859	NH2	ARG	A	261	8.325	65.071	-8.578	1.00	0.00	A	N
ATOM	1860	C	ARG	A	261	8.230	65.620	-0.313	1.00	0.00	A	C
ATOM	1861	O	ARG	A	261	9.377	65.890	0.036	1.00	0.00	A	O
ATOM	1922	N	ILE	A	269	-0.983	61.188	2.255	1.00	0.00	A	N
ATOM	1923	CA	ILE	A	269	-1.028	59.840	1.750	1.00	0.00	A	C
ATOM	1924	CB	ILE	A	269	0.211	59.409	0.992	1.00	0.00	A	C
ATOM	1925	CG2	ILE	A	269	1.421	59.366	1.930	1.00	0.00	A	C
ATOM	1926	CG1	ILE	A	269	-0.033	58.074	0.270	1.00	0.00	A	C
ATOM	1927	CD1	ILE	A	269	1.055	57.722	-0.743	1.00	0.00	A	C
ATOM	1928	C	ILE	A	269	-1.316	58.889	2.865	1.00	0.00	A	C
ATOM	1929	O	ILE	A	269	-1.932	57.847	2.645	1.00	0.00	A	O
ATOM	1956	N	GLN	A	273	-4.388	55.688	3.599	1.00	0.00	A	N
ATOM	1957	CA	GLN	A	273	-4.387	54.468	4.374	1.00	0.00	A	C
ATOM	1958	CB	GLN	A	273	-2.979	53.997	4.771	1.00	0.00	A	C
ATOM	1959	CG	GLN	A	273	-2.095	53.633	3.578	1.00	0.00	A	C
ATOM	1960	CD	GLN	A	273	-0.745	53.189	4.120	1.00	0.00	A	C
ATOM	1961	OE1	GLN	A	273	0.189	52.927	3.362	1.00	0.00	A	O
ATOM	1962	NE2	GLN	A	273	-0.635	53.103	5.472	1.00	0.00	A	N
ATOM	1963	C	GLN	A	273	-5.097	54.866	5.634	1.00	0.00	A	C
ATOM	1964	O	GLN	A	273	-5.444	56.023	5.761	1.00	0.00	A	O
ATOM	2010	N	GLN	A	279	-11.744	56.008	12.753	1.00	0.00	A	N
ATOM	2011	CA	GLN	A	279	-11.367	56.515	14.065	1.00	0.00	A	C
ATOM	2012	CB	GLN	A	279	-10.915	55.406	15.035	1.00	0.00	A	C
ATOM	2013	CG	GLN	A	279	-12.010	54.394	15.393	1.00	0.00	A	C
ATOM	2014	CD	GLN	A	279	-12.046	53.306	14.327	1.00	0.00	A	C
ATOM	2015	OE1	GLN	A	279	-13.036	52.589	14.188	1.00	0.00	A	O
ATOM	2016	NE2	GLN	A	279	-10.937	53.175	13.551	1.00	0.00	A	N
ATOM	2017	C	GLN	A	279	-10.200	57.462	13.890	1.00	0.00	A	C
ATOM	2018	O	GLN	A	279	-10.248	58.580	14.393	1.00	0.00	A	O
ATOM	2052	N	VAL	A	284	-6.672	66.345	9.034	1.00	0.00	A	N
ATOM	2053	CA	VAL	A	284	-6.224	67.655	8.633	1.00	0.00	A	C
ATOM	2054	CB	VAL	A	284	-7.198	68.364	7.722	1.00	0.00	A	C
ATOM	2055	CG1	VAL	A	284	-7.242	67.590	6.395	1.00	0.00	A	C
ATOM	2056	CG2	VAL	A	284	-8.579	68.469	8.394	1.00	0.00	A	C
ATOM	2057	C	VAL	A	284	-5.955	68.500	9.849	1.00	0.00	A	C
ATOM	2058	O	VAL	A	284	-5.041	69.324	9.836	1.00	0.00	A	O
ATOM	2082	N	ILE	A	288	-2.265	70.162	10.837	1.00	0.00	A	N
ATOM	2083	CA	ILE	A	288	-2.081	71.565	11.095	1.00	0.00	A	C
ATOM	2084	CB	ILE	A	288	-3.442	72.286	10.996	1.00	0.00	A	C
ATOM	2085	CG2	ILE	A	288	-4.267	72.296	12.283	1.00	0.00	A	C
ATOM	2086	CG1	ILE	A	288	-3.390	73.736	10.576	1.00	0.00	A	C
ATOM	2087	CD1	ILE	A	288	-4.848	74.210	10.553	1.00	0.00	A	C
ATOM	2088	C	ILE	A	288	-1.386	71.706	12.433	1.00	0.00	A	C
ATOM	2089	O	ILE	A	288	-0.491	72.535	12.603	1.00	0.00	A	O
ATOM	2090	N	ALA	A	289	-1.770	70.862	13.415	1.00	0.00	A	N
ATOM	2091	CA	ALA	A	289	-1.221	70.897	14.737	1.00	0.00	A	C
ATOM	2092	CB	ALA	A	289	-1.971	69.971	15.709	1.00	0.00	A	C
ATOM	2093	C	ALA	A	289	0.216	70.472	14.740	1.00	0.00	A	C
ATOM	2094	O	ALA	A	289	1.046	71.082	15.408	1.00	0.00	A	O
ATOM	2102	N	VAL	A	291	2.292	70.479	12.243	1.00	0.00	A	N
ATOM	2103	CA	VAL	A	291	3.087	71.422	11.505	1.00	0.00	A	C
ATOM	2104	CB	VAL	A	291	2.381	71.958	10.285	1.00	0.00	A	C
ATOM	2105	CG1	VAL	A	291	3.181	73.133	9.694	1.00	0.00	A	C
ATOM	2106	CG2	VAL	A	291	2.234	70.805	9.278	1.00	0.00	A	C
ATOM	2107	C	VAL	A	291	3.495	72.579	12.372	1.00	0.00	A	C
ATOM	2108	O	VAL	A	291	4.663	72.963	12.346	1.00	0.00	A	O
ATOM	2109	N	THR	A	292	2.563	73.134	13.181	1.00	0.00	A	N
ATOM	2110	CA	THR	A	292	2.894	74.263	14.010	1.00	0.00	A	C
ATOM	2111	CB	THR	A	292	1.705	74.994	14.583	1.00	0.00	A	C
ATOM	2112	OG1	THR	A	292	2.132	76.199	15.198	1.00	0.00	A	O
ATOM	2113	CG2	THR	A	292	0.966	74.115	15.595	1.00	0.00	A	C
ATOM	2114	C	THR	A	292	3.842	73.860	15.100	1.00	0.00	A	C
ATOM	2115	O	THR	A	292	4.696	74.655	15.488	1.00	0.00	A	O
ATOM	2124	N	MET	A	294	6.163	71.544	14.781	1.00	0.00	A	N
ATOM	2125	CA	MET	A	294	7.456	71.428	14.153	1.00	0.00	A	C
ATOM	2126	CB	MET	A	294	7.432	70.810	12.749	1.00	0.00	A	C
ATOM	2127	CG	MET	A	294	6.980	69.356	12.695	1.00	0.00	A	C

Figure 8

ATOM	2128	SD	MET	A	294	7.302	68.586	11.086	1.00	0.00	A	S
ATOM	2129	CE	MET	A	294	5.765	67.635	11.135	1.00	0.00	A	C
ATOM	2130	C	MET	A	294	8.074	72.771	13.967	1.00	0.00	A	C
ATOM	2131	O	MET	A	294	9.273	72.913	14.167	1.00	0.00	A	O
ATOM	2237	N	GLY	A	309	26.446	80.063	19.836	1.00	0.00	A	N
ATOM	2238	CA	GLY	A	309	27.655	79.459	19.352	1.00	0.00	A	C
ATOM	2239	C	GLY	A	309	28.578	80.507	18.834	1.00	0.00	A	C
ATOM	2240	O	GLY	A	309	29.760	80.472	19.159	1.00	0.00	A	O
ATOM	2397	N	CYS	A	329	41.655	71.732	6.605	1.00	0.00	A	N
ATOM	2398	CA	CYS	A	329	42.234	70.459	6.287	1.00	0.00	A	C
ATOM	2399	CB	CYS	A	329	42.863	69.779	7.515	1.00	0.00	A	C
ATOM	2400	SG	CYS	A	329	43.599	68.166	7.110	1.00	0.00	A	S
ATOM	2401	C	CYS	A	329	41.233	69.493	5.718	1.00	0.00	A	C
ATOM	2402	O	CYS	A	329	41.475	68.880	4.678	1.00	0.00	A	O
ATOM	2410	N	VAL	A	331	37.862	69.897	4.685	1.00	0.00	A	N
ATOM	2411	CA	VAL	A	331	37.110	70.285	3.527	1.00	0.00	A	C
ATOM	2412	CB	VAL	A	331	35.726	70.802	3.830	1.00	0.00	A	C
ATOM	2413	CG1	VAL	A	331	35.818	72.201	4.457	1.00	0.00	A	C
ATOM	2414	CG2	VAL	A	331	34.894	70.764	2.541	1.00	0.00	A	C
ATOM	2415	C	VAL	A	331	37.905	71.381	2.895	1.00	0.00	A	C
ATOM	2416	O	VAL	A	331	38.725	72.028	3.525	1.00	0.00	A	O
ATOM	2602	N	ILE	A	355	29.043	73.634	23.089	1.00	0.00	A	N
ATOM	2603	CA	ILE	A	355	28.163	74.773	23.147	1.00	0.00	A	C
ATOM	2604	CB	ILE	A	355	27.907	75.584	21.890	1.00	0.00	A	C
ATOM	2605	CG2	ILE	A	355	27.197	74.838	20.758	1.00	0.00	A	C
ATOM	2606	CG1	ILE	A	355	27.098	76.796	22.342	1.00	0.00	A	C
ATOM	2607	CD1	ILE	A	355	26.164	77.294	21.269	1.00	0.00	A	C
ATOM	2608	C	ILE	A	355	26.835	74.350	23.719	1.00	0.00	A	C
ATOM	2609	O	ILE	A	355	26.359	75.000	24.649	1.00	0.00	A	O
ATOM	2688	N	ASN	A	365	13.601	70.092	30.959	1.00	0.00	A	N
ATOM	2689	CA	ASN	A	365	13.133	69.958	29.616	1.00	0.00	A	C
ATOM	2690	CB	ASN	A	365	13.364	68.544	29.157	1.00	0.00	A	C
ATOM	2691	CG	ASN	A	365	13.696	68.749	27.735	1.00	0.00	A	C
ATOM	2692	OD1	ASN	A	365	13.978	67.748	27.101	1.00	0.00	A	O
ATOM	2693	ND2	ASN	A	365	13.690	70.024	27.262	1.00	0.00	A	N
ATOM	2694	C	ASN	A	365	11.623	70.216	29.644	1.00	0.00	A	C
ATOM	2695	O	ASN	A	365	11.080	70.764	30.604	1.00	0.00	A	O
ATOM	2754	N	VAL	A	374	3.026	54.851	39.731	1.00	0.00	A	N
ATOM	2755	CA	VAL	A	374	4.287	54.176	39.706	1.00	0.00	A	C
ATOM	2756	CB	VAL	A	374	5.245	54.733	38.694	1.00	0.00	A	C
ATOM	2757	CG1	VAL	A	374	4.649	54.530	37.291	1.00	0.00	A	C
ATOM	2758	CG2	VAL	A	374	5.529	56.204	39.045	1.00	0.00	A	C
ATOM	2759	C	VAL	A	374	4.912	54.337	41.045	1.00	0.00	A	C
ATOM	2760	O	VAL	A	374	4.487	55.178	41.828	1.00	0.00	A	O
ATOM	2781	N	LYS	A	377	11.808	54.899	43.485	1.00	0.00	A	N
ATOM	2782	CA	LYS	A	377	12.718	55.066	44.594	1.00	0.00	A	C
ATOM	2783	CB	LYS	A	377	13.390	56.450	44.609	1.00	0.00	A	C
ATOM	2784	CG	LYS	A	377	14.361	56.719	43.459	1.00	0.00	A	C
ATOM	2785	CD	LYS	A	377	15.636	55.876	43.490	1.00	0.00	A	C
ATOM	2786	CE	LYS	A	377	16.695	56.374	42.503	1.00	0.00	A	C
ATOM	2787	NZ	LYS	A	377	18.006	55.759	42.806	1.00	0.00	A	N
ATOM	2788	C	LYS	A	377	11.981	54.929	45.906	1.00	0.00	A	C
ATOM	2789	O	LYS	A	377	12.351	55.580	46.884	1.00	0.00	A	O
ATOM	2846	N	MET	A	385	0.870	62.712	37.766	1.00	0.00	A	N
ATOM	2847	CA	MET	A	385	1.620	63.723	38.468	1.00	0.00	A	C
ATOM	2848	CB	MET	A	385	2.235	63.236	39.790	1.00	0.00	A	C
ATOM	2849	CG	MET	A	385	2.820	64.373	40.630	1.00	0.00	A	C
ATOM	2850	SD	MET	A	385	3.316	63.898	42.312	1.00	0.00	A	S
ATOM	2851	CE	MET	A	385	3.881	65.564	42.757	1.00	0.00	A	C
ATOM	2852	C	MET	A	385	2.724	64.256	37.599	1.00	0.00	A	C
ATOM	2853	O	MET	A	385	3.459	63.505	36.958	1.00	0.00	A	O
ATOM	2869	N	ILE	A	388	9.358	67.098	36.618	1.00	0.00	A	N
ATOM	2870	CA	ILE	A	388	10.258	68.025	36.000	1.00	0.00	A	C
ATOM	2871	CB	ILE	A	388	10.191	69.392	36.634	1.00	0.00	A	C
ATOM	2872	CG2	ILE	A	388	10.344	69.270	38.155	1.00	0.00	A	C
ATOM	2873	CG1	ILE	A	388	11.148	70.373	35.957	1.00	0.00	A	C

Figure 8

ATOM	2874	CD1	ILE	A	388	10.853	71.828	36.324	1.00	0.00	A	C
ATOM	2875	C	ILE	A	388	11.645	67.422	36.022	1.00	0.00	A	C
ATOM	2876	O	ILE	A	388	12.221	67.141	37.073	1.00	0.00	A	O
ATOM	2877	N	THR	A	389	12.223	67.183	34.821	1.00	0.00	A	N
ATOM	2878	CA	THR	A	389	13.519	66.560	34.751	1.00	0.00	A	C
ATOM	2879	CB	THR	A	389	13.681	65.594	33.600	1.00	0.00	A	C
ATOM	2880	OG1	THR	A	389	14.984	65.031	33.616	1.00	0.00	A	O
ATOM	2881	CG2	THR	A	389	13.393	66.280	32.252	1.00	0.00	A	C
ATOM	2882	C	THR	A	389	14.550	67.644	34.694	1.00	0.00	A	C
ATOM	2883	O	THR	A	389	14.450	68.589	33.916	1.00	0.00	A	O
ATOM	2936	N	ASN	A	397	26.987	68.171	35.454	1.00	0.00	A	N
ATOM	2937	CA	ASN	A	397	27.525	67.227	36.423	1.00	0.00	A	C
ATOM	2938	CB	ASN	A	397	27.314	65.762	35.987	1.00	0.00	A	C
ATOM	2939	CG	ASN	A	397	27.581	64.820	37.158	1.00	0.00	A	C
ATOM	2940	OD1	ASN	A	397	28.721	64.566	37.546	1.00	0.00	A	O
ATOM	2941	ND2	ASN	A	397	26.481	64.273	37.740	1.00	0.00	A	N
ATOM	2942	C	ASN	A	397	29.003	67.459	36.629	1.00	0.00	A	C
ATOM	2943	O	ASN	A	397	29.795	67.478	35.688	1.00	0.00	A	O
ATOM	2944	N	ASP	A	398	29.367	67.703	37.909	1.00	0.00	A	N
ATOM	2945	CA	ASP	A	398	30.682	68.104	38.333	1.00	0.00	A	C
ATOM	2946	CB	ASP	A	398	30.757	68.379	39.845	1.00	0.00	A	C
ATOM	2947	CG	ASP	A	398	30.009	69.675	40.127	1.00	0.00	A	C
ATOM	2948	OD1	ASP	A	398	30.376	70.715	39.515	1.00	0.00	A	O
ATOM	2949	OD2	ASP	A	398	29.070	69.647	40.965	1.00	0.00	A	O
ATOM	2950	C	ASP	A	398	31.693	67.049	38.024	1.00	0.00	A	C
ATOM	2951	O	ASP	A	398	32.814	67.371	37.637	1.00	0.00	A	O
ATOM	3046	N	GLY	A	410	37.264	70.718	25.575	1.00	0.00	A	N
ATOM	3047	CA	GLY	A	410	38.055	69.637	26.091	1.00	0.00	A	C
ATOM	3048	C	GLY	A	410	37.204	68.633	26.817	1.00	0.00	A	C
ATOM	3049	O	GLY	A	410	37.635	67.492	26.982	1.00	0.00	A	O
ATOM	3087	N	LYS	A	415	42.674	62.351	25.280	1.00	0.00	A	N
ATOM	3088	CA	LYS	A	415	44.087	62.612	25.381	1.00	0.00	A	C
ATOM	3089	CB	LYS	A	415	44.882	61.355	25.786	1.00	0.00	A	C
ATOM	3090	CG	LYS	A	415	44.557	60.120	24.940	1.00	0.00	A	C
ATOM	3091	CD	LYS	A	415	45.532	58.957	25.121	1.00	0.00	A	C
ATOM	3092	CE	LYS	A	415	45.176	57.737	24.268	1.00	0.00	A	C
ATOM	3093	NZ	LYS	A	415	46.159	56.656	24.489	1.00	0.00	A	N
ATOM	3094	C	LYS	A	415	44.595	63.115	24.064	1.00	0.00	A	C
ATOM	3095	O	LYS	A	415	45.385	64.056	24.016	1.00	0.00	A	O
ATOM	3096	N	SER	A	416	44.128	62.507	22.952	1.00	0.00	A	N
ATOM	3097	CA	SER	A	416	44.470	62.930	21.623	1.00	0.00	A	C
ATOM	3098	CB	SER	A	416	44.567	61.752	20.631	1.00	0.00	A	C
ATOM	3099	OG	SER	A	416	45.263	62.125	19.448	1.00	0.00	A	O
ATOM	3100	C	SER	A	416	43.355	63.866	21.225	1.00	0.00	A	C
ATOM	3101	O	SER	A	416	42.712	64.445	22.101	1.00	0.00	A	O
ATOM	3149	N	ASP	A	423	27.564	60.140	28.275	1.00	0.00	A	N
ATOM	3150	CA	ASP	A	423	26.228	59.724	28.603	1.00	0.00	A	C
ATOM	3151	CB	ASP	A	423	26.206	58.549	29.604	1.00	0.00	A	C
ATOM	3152	CG	ASP	A	423	26.966	58.927	30.872	1.00	0.00	A	C
ATOM	3153	OD1	ASP	A	423	28.227	58.951	30.839	1.00	0.00	A	O
ATOM	3154	OD2	ASP	A	423	26.296	59.170	31.906	1.00	0.00	A	O
ATOM	3155	C	ASP	A	423	25.473	60.894	29.169	1.00	0.00	A	C
ATOM	3156	O	ASP	A	423	24.246	60.954	29.129	1.00	0.00	A	O
ATOM	3241	N	MET	A	434	12.393	61.971	23.937	1.00	0.00	A	N
ATOM	3242	CA	MET	A	434	13.599	62.580	23.405	1.00	0.00	A	C
ATOM	3243	CB	MET	A	434	14.739	61.571	23.189	1.00	0.00	A	C
ATOM	3244	CG	MET	A	434	16.076	62.223	22.839	1.00	0.00	A	C
ATOM	3245	SD	MET	A	434	17.438	61.044	22.603	1.00	0.00	A	S
ATOM	3246	CE	MET	A	434	18.746	62.304	22.594	1.00	0.00	A	C
ATOM	3247	C	MET	A	434	13.334	63.266	22.107	1.00	0.00	A	C
ATOM	3248	O	MET	A	434	12.503	62.790	21.331	1.00	0.00	A	O
ATOM	3255	N	MET	A	436	12.657	64.861	18.803	1.00	0.00	A	N
ATOM	3256	CA	MET	A	436	12.285	64.337	17.531	1.00	0.00	A	C
ATOM	3257	CB	MET	A	436	10.879	64.828	17.230	1.00	0.00	A	C
ATOM	3258	CG	MET	A	436	10.693	65.224	15.788	1.00	0.00	A	C
ATOM	3259	SD	MET	A	436	9.025	64.917	15.213	1.00	0.00	A	S
ATOM	3260	CE	MET	A	436	9.533	63.235	14.757	1.00	0.00	A	C
ATOM	3261	C	MET	A	436	13.228	64.832	16.481	1.00	0.00	A	C
ATOM	3262	O	MET	A	436	13.533	64.160	15.501	1.00	0.00	A	O

Figure 8

ATOM	3276	N	GLY	A	439	18.467	64.616	15.248	1.00	0.00	A	N
ATOM	3277	CA	GLY	A	439	19.298	64.416	14.093	1.00	0.00	A	C
ATOM	3278	C	GLY	A	439	19.344	65.648	13.230	1.00	0.00	A	C
ATOM	3279	O	GLY	A	439	20.407	66.009	12.723	1.00	0.00	A	O
ATOM	3293	N	ARG	A	442	21.410	68.509	14.877	1.00	0.00	A	N
ATOM	3294	CA	ARG	A	442	22.829	68.271	14.875	1.00	0.00	A	C
ATOM	3295	CB	ARG	A	442	23.163	66.811	15.215	1.00	0.00	A	C
ATOM	3296	CG	ARG	A	442	24.612	66.591	15.644	1.00	0.00	A	C
ATOM	3297	CD	ARG	A	442	24.925	65.133	15.979	1.00	0.00	A	C
ATOM	3298	NE	ARG	A	442	26.359	65.056	16.375	1.00	0.00	A	N
ATOM	3299	CZ	ARG	A	442	26.935	63.841	16.608	1.00	0.00	A	C
ATOM	3300	NH1	ARG	A	442	26.199	62.700	16.475	1.00	0.00	A	N
ATOM	3301	NH2	ARG	A	442	28.249	63.766	16.974	1.00	0.00	A	N
ATOM	3302	C	ARG	A	442	23.347	68.576	13.506	1.00	0.00	A	C
ATOM	3303	O	ARG	A	442	24.449	69.103	13.343	1.00	0.00	A	O
ATOM	3374	N	THR	A	451	29.964	75.996	7.772	1.00	0.00	A	N
ATOM	3375	CA	THR	A	451	29.873	76.803	6.585	1.00	0.00	A	C
ATOM	3376	CB	THR	A	451	28.577	76.659	5.820	1.00	0.00	A	C
ATOM	3377	OG1	THR	A	451	28.716	77.256	4.539	1.00	0.00	A	O
ATOM	3378	CG2	THR	A	451	27.398	77.293	6.570	1.00	0.00	A	C
ATOM	3379	C	THR	A	451	30.172	78.247	6.888	1.00	0.00	A	C
ATOM	3380	O	THR	A	451	30.815	78.912	6.076	1.00	0.00	A	O
ATOM	3456	N	GLN	A	461	33.030	93.789	17.869	1.00	0.00	A	N
ATOM	3457	CA	GLN	A	461	33.393	95.182	17.949	1.00	0.00	A	C
ATOM	3458	CB	GLN	A	461	32.187	96.112	17.751	1.00	0.00	A	C
ATOM	3459	CG	GLN	A	461	31.511	95.981	16.387	1.00	0.00	A	C
ATOM	3460	CD	GLN	A	461	30.261	96.846	16.422	1.00	0.00	A	C
ATOM	3461	OE1	GLN	A	461	29.159	96.350	16.651	1.00	0.00	A	O
ATOM	3462	NE2	GLN	A	461	30.432	98.176	16.193	1.00	0.00	A	N
ATOM	3463	C	GLN	A	461	33.889	95.445	19.324	1.00	0.00	A	C
ATOM	3464	O	GLN	A	461	35.020	95.884	19.531	1.00	0.00	A	O
ATOM	3496	N	ASP	A	466	36.424	91.470	27.010	1.00	0.00	A	N
ATOM	3497	CA	ASP	A	466	35.407	92.176	27.748	1.00	0.00	A	C
ATOM	3498	CB	ASP	A	466	35.176	93.594	27.195	1.00	0.00	A	C
ATOM	3499	CG	ASP	A	466	36.377	94.454	27.567	1.00	0.00	A	C
ATOM	3500	OD1	ASP	A	466	37.116	94.064	28.510	1.00	0.00	A	O
ATOM	3501	OD2	ASP	A	466	36.569	95.514	26.914	1.00	0.00	A	O
ATOM	3502	C	ASP	A	466	34.047	91.503	27.822	1.00	0.00	A	C
ATOM	3503	O	ASP	A	466	33.450	91.480	28.897	1.00	0.00	A	O
ATOM	3504	N	ILE	A	467	33.528	90.944	26.699	1.00	0.00	A	N
ATOM	3505	CA	ILE	A	467	32.170	90.450	26.504	1.00	0.00	A	C
ATOM	3506	CB	ILE	A	467	31.958	89.932	25.103	1.00	0.00	A	C
ATOM	3507	CG2	ILE	A	467	32.770	88.637	24.935	1.00	0.00	A	C
ATOM	3508	CG1	ILE	A	467	30.465	89.789	24.766	1.00	0.00	A	C
ATOM	3509	CD1	ILE	A	467	30.198	89.612	23.273	1.00	0.00	A	C
ATOM	3510	C	ILE	A	467	31.709	89.410	27.507	1.00	0.00	A	C
ATOM	3511	O	ILE	A	467	32.485	88.578	27.971	1.00	0.00	A	O
ATOM	3520	N	ILE	A	469	29.399	86.265	28.522	1.00	0.00	A	N
ATOM	3521	CA	ILE	A	469	28.986	84.930	28.177	1.00	0.00	A	C
ATOM	3522	CB	ILE	A	469	30.149	83.986	28.400	1.00	0.00	A	C
ATOM	3523	CG2	ILE	A	469	30.427	83.902	29.909	1.00	0.00	A	C
ATOM	3524	CG1	ILE	A	469	29.977	82.621	27.718	1.00	0.00	A	C
ATOM	3525	CD1	ILE	A	469	31.233	81.758	27.831	1.00	0.00	A	C
ATOM	3526	C	ILE	A	469	27.784	84.451	28.943	1.00	0.00	A	C
ATOM	3527	O	ILE	A	469	27.178	83.452	28.559	1.00	0.00	A	O
ATOM	3542	N	ILE	A	472	21.208	84.419	30.302	1.00	0.00	A	N
ATOM	3543	CA	ILE	A	472	20.211	85.099	31.065	1.00	0.00	A	C
ATOM	3544	CB	ILE	A	472	19.841	86.476	30.555	1.00	0.00	A	C
ATOM	3545	CG2	ILE	A	472	21.078	87.370	30.738	1.00	0.00	A	C
ATOM	3546	CG1	ILE	A	472	19.301	86.474	29.115	1.00	0.00	A	C
ATOM	3547	CD1	ILE	A	472	18.642	87.793	28.713	1.00	0.00	A	C
ATOM	3548	C	ILE	A	472	19.029	84.176	31.147	1.00	0.00	A	C
ATOM	3549	O	ILE	A	472	18.456	83.750	30.145	1.00	0.00	A	O
ATOM	3550	N	ALA	A	473	18.654	83.804	32.384	1.00	0.00	A	N
ATOM	3551	CA	ALA	A	473	17.621	82.819	32.535	1.00	0.00	A	C
ATOM	3552	CB	ALA	A	473	17.926	81.778	33.626	1.00	0.00	A	C
ATOM	3553	C	ALA	A	473	16.315	83.459	32.889	1.00	0.00	A	C
ATOM	3554	O	ALA	A	473	16.245	84.397	33.682	1.00	0.00	A	O

500/514

Figure 8

ATOM	3563	N	ALA A 475	13.115	81.683	34.037	1.00	0.00	A	N
ATOM	3564	CA	ALA A 475	12.384	80.557	34.553	1.00	0.00	A	C
ATOM	3565	CB	ALA A 475	10.861	80.670	34.352	1.00	0.00	A	C
ATOM	3566	C	ALA A 475	12.845	79.257	33.946	1.00	0.00	A	C
ATOM	3567	O	ALA A 475	13.768	78.630	34.461	1.00	0.00	A	O
ATOM	3579	N	GLY A 477	13.655	78.899	30.440	1.00	0.00	A	N
ATOM	3580	CA	GLY A 477	14.508	78.957	29.277	1.00	0.00	A	C
ATOM	3581	C	GLY A 477	15.612	79.930	29.541	1.00	0.00	A	C
ATOM	3582	O	GLY A 477	15.579	80.661	30.526	1.00	0.00	A	O
ATOM	3583	N	ARG A 478	16.633	79.956	28.658	1.00	0.00	A	N
ATOM	3584	CA	ARG A 478	17.749	80.828	28.876	1.00	0.00	A	C
ATOM	3585	CB	ARG A 478	18.882	80.050	29.565	1.00	0.00	A	C
ATOM	3586	CG	ARG A 478	19.746	80.839	30.548	1.00	0.00	A	C
ATOM	3587	CD	ARG A 478	20.460	79.897	31.525	1.00	0.00	A	C
ATOM	3588	NE	ARG A 478	20.993	80.701	32.661	1.00	0.00	A	N
ATOM	3589	CZ	ARG A 478	22.138	80.300	33.288	1.00	0.00	A	C
ATOM	3590	NH1	ARG A 478	22.788	79.178	32.865	1.00	0.00	A	N
ATOM	3591	NH2	ARG A 478	22.636	81.024	34.333	1.00	0.00	A	N
ATOM	3592	C	ARG A 478	18.186	81.272	27.514	1.00	0.00	A	C
ATOM	3593	O	ARG A 478	17.987	80.550	26.538	1.00	0.00	A	O
ATOM	3615	N	LEU A 482	22.712	90.262	24.259	1.00	0.00	A	N
ATOM	3616	CA	LEU A 482	22.760	90.853	22.953	1.00	0.00	A	C
ATOM	3617	CB	LEU A 482	21.990	92.182	22.859	1.00	0.00	A	C
ATOM	3618	CG	LEU A 482	22.035	92.830	21.462	1.00	0.00	A	C
ATOM	3619	CD2	LEU A 482	21.497	94.270	21.497	1.00	0.00	A	C
ATOM	3620	CD1	LEU A 482	21.324	91.953	20.417	1.00	0.00	A	C
ATOM	3621	C	LEU A 482	24.187	91.130	22.599	1.00	0.00	A	C
ATOM	3622	O	LEU A 482	24.996	91.479	23.454	1.00	0.00	A	O

Figure 9

Table 20

ATOM	55	N	ILE	A	38	-1.705	79.604	49.729	1.00	0.00	A	N
ATOM	56	CA	ILE	A	38	-2.001	79.914	48.349	1.00	0.00	A	C
ATOM	57	CB	ILE	A	38	-2.511	81.319	48.195	1.00	0.00	A	C
ATOM	58	CG2	ILE	A	38	-2.698	81.608	46.696	1.00	0.00	A	C
ATOM	59	CG1	ILE	A	38	-3.795	81.512	49.018	1.00	0.00	A	C
ATOM	60	CD1	ILE	A	38	-4.210	82.976	49.159	1.00	0.00	A	C
ATOM	61	C	ILE	A	38	-0.827	79.781	47.422	1.00	0.00	A	C
ATOM	62	O	ILE	A	38	-0.888	79.176	46.351	1.00	0.00	A	O
ATOM	83	N	MET	A	42	6.523	79.249	46.117	1.00	0.00	A	N
ATOM	84	CA	MET	A	42	6.951	80.352	45.295	1.00	0.00	A	C
ATOM	85	CB	MET	A	42	5.804	81.326	44.975	1.00	0.00	A	C
ATOM	86	CG	MET	A	42	6.227	82.509	44.104	1.00	0.00	A	C
ATOM	87	SD	MET	A	42	4.884	83.672	43.713	1.00	0.00	A	S
ATOM	88	CE	MET	A	42	5.922	84.781	42.719	1.00	0.00	A	C
ATOM	89	C	MET	A	42	8.016	81.131	46.002	1.00	0.00	A	C
ATOM	90	O	MET	A	42	8.895	81.699	45.358	1.00	0.00	A	O
ATOM	116	N	ASP	A	46	11.044	80.749	43.651	1.00	0.00	A	N
ATOM	117	CA	ASP	A	46	11.150	82.065	43.067	1.00	0.00	A	C
ATOM	118	CB	ASP	A	46	12.595	82.655	43.272	1.00	0.00	A	C
ATOM	119	CG	ASP	A	46	12.882	84.066	42.794	1.00	0.00	A	C
ATOM	120	OD1	ASP	A	46	12.220	85.036	43.250	1.00	0.00	A	O
ATOM	121	OD2	ASP	A	46	13.793	84.168	41.932	1.00	0.00	A	O
ATOM	122	C	ASP	A	46	10.610	82.022	41.642	1.00	0.00	A	C
ATOM	123	O	ASP	A	46	10.038	81.019	41.212	1.00	0.00	A	O
ATOM	124	N	VAL	A	47	10.525	83.209	41.001	1.00	0.00	A	N
ATOM	125	CA	VAL	A	47	10.152	83.523	39.647	1.00	0.00	A	C
ATOM	126	CB	VAL	A	47	9.500	84.872	39.545	1.00	0.00	A	C
ATOM	127	CG1	VAL	A	47	8.185	84.834	40.341	1.00	0.00	A	C
ATOM	128	CG2	VAL	A	47	10.488	85.942	40.036	1.00	0.00	A	C
ATOM	129	C	VAL	A	47	11.302	83.509	38.669	1.00	0.00	A	C
ATOM	130	O	VAL	A	47	11.073	83.361	37.466	1.00	0.00	A	O
ATOM	156	N	CYS	A	51	15.430	77.020	37.848	1.00	0.00	A	N
ATOM	157	CA	CYS	A	51	16.365	75.957	37.641	1.00	0.00	A	C
ATOM	158	CB	CYS	A	51	17.069	76.144	36.289	1.00	0.00	A	C
ATOM	159	SG	CYS	A	51	18.675	75.310	36.199	1.00	0.00	A	S
ATOM	160	C	CYS	A	51	17.437	75.961	38.696	1.00	0.00	A	C
ATOM	161	O	CYS	A	51	17.802	74.917	39.233	1.00	0.00	A	O
ATOM	177	N	PHE	A	54	16.309	74.574	42.094	1.00	0.00	A	N
ATOM	178	CA	PHE	A	54	16.084	73.156	42.159	1.00	0.00	A	C
ATOM	179	CB	PHE	A	54	15.674	72.506	40.824	1.00	0.00	A	C
ATOM	180	CG	PHE	A	54	14.256	72.830	40.501	1.00	0.00	A	C
ATOM	181	CD1	PHE	A	54	13.236	72.316	41.268	1.00	0.00	A	C
ATOM	182	CD2	PHE	A	54	13.938	73.600	39.408	1.00	0.00	A	C
ATOM	183	CE1	PHE	A	54	11.923	72.597	40.973	1.00	0.00	A	C
ATOM	184	CE2	PHE	A	54	12.626	73.887	39.105	1.00	0.00	A	C
ATOM	185	CZ	PHE	A	54	11.616	73.387	39.891	1.00	0.00	A	C
ATOM	186	C	PHE	A	54	17.337	72.457	42.568	1.00	0.00	A	C
ATOM	187	O	PHE	A	54	17.271	71.450	43.272	1.00	0.00	A	O
ATOM	203	N	PHE	A	57	17.740	72.943	46.203	1.00	0.00	A	N
ATOM	204	CA	PHE	A	57	16.746	72.152	46.862	1.00	0.00	A	C
ATOM	205	CB	PHE	A	57	15.351	72.118	46.214	1.00	0.00	A	C
ATOM	206	CG	PHE	A	57	14.735	73.426	46.507	1.00	0.00	A	C
ATOM	207	CD1	PHE	A	57	14.680	73.857	47.809	1.00	0.00	A	C
ATOM	208	CD2	PHE	A	57	14.169	74.177	45.507	1.00	0.00	A	C
ATOM	209	CE1	PHE	A	57	14.115	75.067	48.109	1.00	0.00	A	C
ATOM	210	CE2	PHE	A	57	13.602	75.388	45.794	1.00	0.00	A	C
ATOM	211	CZ	PHE	A	57	13.591	75.823	47.092	1.00	0.00	A	C
ATOM	212	C	PHE	A	57	17.172	70.735	46.906	1.00	0.00	A	C
ATOM	213	O	PHE	A	57	16.884	70.070	47.889	1.00	0.00	A	O
ATOM	284	N	VAL	A	67	7.695	69.746	44.843	1.00	0.00	A	N
ATOM	285	CA	VAL	A	67	7.659	71.183	44.863	1.00	0.00	A	C
ATOM	286	CB	VAL	A	67	8.613	71.765	43.844	1.00	0.00	A	C
ATOM	287	CG1	VAL	A	67	8.587	73.306	43.848	1.00	0.00	A	C
ATOM	288	CG2	VAL	A	67	10.001	71.187	44.137	1.00	0.00	A	C
ATOM	289	C	VAL	A	67	6.262	71.603	44.502	1.00	0.00	A	C
ATOM	290	O	VAL	A	67	5.590	70.923	43.738	1.00	0.00	A	O

Figure 9

ATOM	318	N	MET	A	71	-1.144	75.115	44.024	1.00	0.00	A	N
ATOM	319	CA	MET	A	71	-1.759	73.903	44.476	1.00	0.00	A	C
ATOM	320	CB	MET	A	71	-3.259	73.838	44.133	1.00	0.00	A	C
ATOM	321	CG	MET	A	71	-4.104	74.874	44.878	1.00	0.00	A	C
ATOM	322	SD	MET	A	71	-5.880	74.820	44.490	1.00	0.00	A	S
ATOM	323	CE	MET	A	71	-6.327	76.186	45.602	1.00	0.00	A	C
ATOM	324	C	MET	A	71	-1.118	72.690	43.874	1.00	0.00	A	C
ATOM	325	O	MET	A	71	-1.212	71.609	44.450	1.00	0.00	A	O
ATOM	326	N	ASN	A	72	-0.518	72.831	42.671	1.00	0.00	A	N
ATOM	327	CA	ASN	A	72	-0.019	71.726	41.888	1.00	0.00	A	C
ATOM	328	CB	ASN	A	72	0.318	72.161	40.446	1.00	0.00	A	C
ATOM	329	CG	ASN	A	72	0.442	70.951	39.529	1.00	0.00	A	C
ATOM	330	OD1	ASN	A	72	1.087	71.028	38.483	1.00	0.00	A	O
ATOM	331	ND2	ASN	A	72	-0.203	69.814	39.903	1.00	0.00	A	N
ATOM	332	C	ASN	A	72	1.218	71.121	42.494	1.00	0.00	A	C
ATOM	333	O	ASN	A	72	2.168	71.836	42.815	1.00	0.00	A	O
ATOM	363	N	PHE	A	77	13.293	65.572	39.378	1.00	0.00	A	N
ATOM	364	CA	PHE	A	77	14.342	64.567	39.407	1.00	0.00	A	C
ATOM	365	CB	PHE	A	77	14.173	63.472	38.341	1.00	0.00	A	C
ATOM	366	CG	PHE	A	77	12.975	62.672	38.720	1.00	0.00	A	C
ATOM	367	CD1	PHE	A	77	13.045	61.754	39.743	1.00	0.00	A	C
ATOM	368	CD2	PHE	A	77	11.785	62.826	38.051	1.00	0.00	A	C
ATOM	369	CE1	PHE	A	77	11.944	61.012	40.096	1.00	0.00	A	C
ATOM	370	CE2	PHE	A	77	10.682	62.083	38.405	1.00	0.00	A	C
ATOM	371	CZ	PHE	A	77	10.757	61.172	39.426	1.00	0.00	A	C
ATOM	372	C	PHE	A	77	15.674	65.244	39.162	1.00	0.00	A	C
ATOM	373	O	PHE	A	77	15.845	65.946	38.170	1.00	0.00	A	O
ATOM	468	N	ASN	A	90	12.277	53.353	33.500	1.00	0.00	A	N
ATOM	469	CA	ASN	A	90	10.845	53.303	33.534	1.00	0.00	A	C
ATOM	470	CB	ASN	A	90	10.242	53.808	34.856	1.00	0.00	A	C
ATOM	471	CG	ASN	A	90	10.544	52.788	35.944	1.00	0.00	A	C
ATOM	472	OD1	ASN	A	90	10.465	53.096	37.132	1.00	0.00	A	O
ATOM	473	ND2	ASN	A	90	10.899	51.541	35.535	1.00	0.00	A	N
ATOM	474	C	ASN	A	90	10.384	54.240	32.470	1.00	0.00	A	C
ATOM	475	O	ASN	A	90	9.515	55.076	32.720	1.00	0.00	A	O
ATOM	534	N	ASN	A	99	1.298	69.167	31.340	1.00	0.00	A	N
ATOM	535	CA	ASN	A	99	0.948	70.471	30.866	1.00	0.00	A	C
ATOM	536	CB	ASN	A	99	-0.339	70.453	30.022	1.00	0.00	A	C
ATOM	537	CG	ASN	A	99	-0.380	71.683	29.128	1.00	0.00	A	C
ATOM	538	OD1	ASN	A	99	-1.428	72.015	28.577	1.00	0.00	A	O
ATOM	539	ND2	ASN	A	99	0.784	72.364	28.956	1.00	0.00	A	N
ATOM	540	C	ASN	A	99	0.711	71.390	32.032	1.00	0.00	A	C
ATOM	541	O	ASN	A	99	0.027	71.040	32.994	1.00	0.00	A	O
ATOM	542	N	SER	A	100	1.289	72.607	31.954	1.00	0.00	A	N
ATOM	543	CA	SER	A	100	1.206	73.636	32.961	1.00	0.00	A	C
ATOM	544	CB	SER	A	100	2.480	74.506	32.912	1.00	0.00	A	C
ATOM	545	OG	SER	A	100	2.691	75.218	34.118	1.00	0.00	A	O
ATOM	546	C	SER	A	100	-0.009	74.476	32.621	1.00	0.00	A	C
ATOM	547	O	SER	A	100	-0.545	74.325	31.527	1.00	0.00	A	O
ATOM	555	N	ILE	A	102	-0.683	77.899	31.840	1.00	0.00	A	N
ATOM	556	CA	ILE	A	102	-0.677	78.841	30.751	1.00	0.00	A	C
ATOM	557	CB	ILE	A	102	0.429	79.866	30.855	1.00	0.00	A	C
ATOM	558	CG2	ILE	A	102	1.792	79.180	31.076	1.00	0.00	A	C
ATOM	559	CG1	ILE	A	102	0.366	80.831	29.660	1.00	0.00	A	C
ATOM	560	CD1	ILE	A	102	1.251	82.064	29.830	1.00	0.00	A	C
ATOM	561	C	ILE	A	102	-0.600	78.120	29.446	1.00	0.00	A	C
ATOM	562	O	ILE	A	102	-1.300	78.445	28.488	1.00	0.00	A	O
ATOM	563	N	SER	A	103	0.222	77.057	29.404	1.00	0.00	A	N
ATOM	564	CA	SER	A	103	0.475	76.270	28.234	1.00	0.00	A	C
ATOM	565	CB	SER	A	103	1.716	75.370	28.430	1.00	0.00	A	C
ATOM	566	OG	SER	A	103	2.169	74.824	27.200	1.00	0.00	A	O
ATOM	567	C	SER	A	103	-0.720	75.404	27.903	1.00	0.00	A	C
ATOM	568	O	SER	A	103	-0.670	74.644	26.941	1.00	0.00	A	O
ATOM	569	N	GLN	A	104	-1.742	75.322	28.782	1.00	0.00	A	N
ATOM	570	CA	GLN	A	104	-2.975	74.643	28.502	1.00	0.00	A	C
ATOM	571	CB	GLN	A	104	-3.628	74.104	29.786	1.00	0.00	A	C
ATOM	572	CG	GLN	A	104	-4.880	73.261	29.539	1.00	0.00	A	C
ATOM	573	CD	GLN	A	104	-5.353	72.726	30.883	1.00	0.00	A	C
ATOM	574	OE1	GLN	A	104	-5.475	73.468	31.856	1.00	0.00	A	O
ATOM	575	NE2	GLN	A	104	-5.618	71.393	30.945	1.00	0.00	A	N

Figure 9

ATOM	576	C	GLN A 104	-3.971	75.521	27.813	1.00	0.00	A	C
ATOM	577	O	GLN A 104	-4.615	75.114	26.848	1.00	0.00	A	O
ATOM	589	N	ILE A 106	-3.389	78.205	26.274	1.00	0.00	A	N
ATOM	590	CA	ILE A 106	-2.695	78.618	25.095	1.00	0.00	A	C
ATOM	591	CB	ILE A 106	-1.219	78.779	25.409	1.00	0.00	A	C
ATOM	592	CG2	ILE A 106	-0.468	77.446	25.349	1.00	0.00	A	C
ATOM	593	CG1	ILE A 106	-0.555	79.763	24.477	1.00	0.00	A	C
ATOM	594	CD1	ILE A 106	0.846	80.139	24.962	1.00	0.00	A	C
ATOM	595	C	ILE A 106	-2.921	77.635	23.972	1.00	0.00	A	C
ATOM	596	O	ILE A 106	-2.859	78.011	22.802	1.00	0.00	A	O
ATOM	597	N	THR A 107	-3.152	76.337	24.272	1.00	0.00	A	N
ATOM	598	CA	THR A 107	-3.149	75.391	23.193	1.00	0.00	A	C
ATOM	599	CB	THR A 107	-2.224	74.225	23.420	1.00	0.00	A	C
ATOM	600	OG1	THR A 107	-2.568	73.531	24.611	1.00	0.00	A	O
ATOM	601	CG2	THR A 107	-0.781	74.749	23.509	1.00	0.00	A	C
ATOM	602	C	THR A 107	-4.505	74.850	22.883	1.00	0.00	A	C
ATOM	603	O	THR A 107	-5.191	74.256	23.714	1.00	0.00	A	O
ATOM	604	N	LYS A 108	-4.913	75.038	21.616	1.00	0.00	A	N
ATOM	605	CA	LYS A 108	-6.168	74.529	21.171	1.00	0.00	A	C
ATOM	606	CB	LYS A 108	-6.964	75.594	20.401	1.00	0.00	A	C
ATOM	607	CG	LYS A 108	-8.478	75.439	20.494	1.00	0.00	A	C
ATOM	608	CD	LYS A 108	-8.979	75.834	21.883	1.00	0.00	A	C
ATOM	609	CE	LYS A 108	-10.488	76.029	21.978	1.00	0.00	A	C
ATOM	610	NZ	LYS A 108	-10.845	76.411	23.362	1.00	0.00	A	N
ATOM	611	C	LYS A 108	-5.812	73.471	20.170	1.00	0.00	A	C
ATOM	612	O	LYS A 108	-5.515	73.781	19.019	1.00	0.00	A	O
ATOM	617	N	LEU A 110	-4.030	69.309	19.858	1.00	0.00	A	N
ATOM	618	CA	LEU A 110	-2.768	68.710	20.170	1.00	0.00	A	C
ATOM	619	CB	LEU A 110	-2.868	67.668	21.295	1.00	0.00	A	C
ATOM	620	CG	LEU A 110	-3.438	68.251	22.603	1.00	0.00	A	C
ATOM	621	CD2	LEU A 110	-2.752	69.574	22.977	1.00	0.00	A	C
ATOM	622	CD1	LEU A 110	-3.417	67.214	23.737	1.00	0.00	A	C
ATOM	623	C	LEU A 110	-2.222	68.025	18.966	1.00	0.00	A	C
ATOM	624	O	LEU A 110	-2.963	67.461	18.161	1.00	0.00	A	O
ATOM	637	N	ILE A 113	3.773	67.751	20.413	1.00	0.00	A	N
ATOM	638	CA	ILE A 113	4.395	68.178	21.637	1.00	0.00	A	C
ATOM	639	CB	ILE A 113	4.840	69.625	21.604	1.00	0.00	A	C
ATOM	640	CG2	ILE A 113	3.677	70.542	21.186	1.00	0.00	A	C
ATOM	641	CG1	ILE A 113	5.515	70.000	22.934	1.00	0.00	A	C
ATOM	642	CD1	ILE A 113	6.236	71.346	22.889	1.00	0.00	A	C
ATOM	643	C	ILE A 113	3.555	67.930	22.858	1.00	0.00	A	C
ATOM	644	O	ILE A 113	4.075	67.475	23.873	1.00	0.00	A	O
ATOM	645	N	SER A 114	2.258	68.282	22.814	1.00	0.00	A	N
ATOM	646	CA	SER A 114	1.349	68.171	23.918	1.00	0.00	A	C
ATOM	647	CB	SER A 114	0.381	69.373	23.930	1.00	0.00	A	C
ATOM	648	OG	SER A 114	-0.328	69.477	25.156	1.00	0.00	A	O
ATOM	649	C	SER A 114	0.546	66.897	23.892	1.00	0.00	A	C
ATOM	650	O	SER A 114	-0.224	66.644	24.817	1.00	0.00	A	O
ATOM	678	N	ARG A 119	-2.627	58.920	20.360	1.00	0.00	A	N
ATOM	679	CA	ARG A 119	-2.500	60.037	19.467	1.00	0.00	A	C
ATOM	680	CB	ARG A 119	-3.308	61.270	19.907	1.00	0.00	A	C
ATOM	681	CG	ARG A 119	-3.307	62.377	18.853	1.00	0.00	A	C
ATOM	682	CD	ARG A 119	-4.197	63.575	19.189	1.00	0.00	A	C
ATOM	683	NE	ARG A 119	-4.160	64.489	18.012	1.00	0.00	A	N
ATOM	684	CZ	ARG A 119	-5.178	65.372	17.796	1.00	0.00	A	C
ATOM	685	NH1	ARG A 119	-6.207	65.460	18.687	1.00	0.00	A	N
ATOM	686	NH2	ARG A 119	-5.171	66.159	16.680	1.00	0.00	A	N
ATOM	687	C	ARG A 119	-1.068	60.449	19.368	1.00	0.00	A	C
ATOM	688	O	ARG A 119	-0.554	60.627	18.268	1.00	0.00	A	O
ATOM	776	N	THR A 129	9.627	58.831	11.114	1.00	0.00	A	N
ATOM	777	CA	THR A 129	9.903	58.153	9.876	1.00	0.00	A	C
ATOM	778	CB	THR A 129	8.944	57.029	9.527	1.00	0.00	A	C
ATOM	779	OG1	THR A 129	9.527	56.206	8.532	1.00	0.00	A	O
ATOM	780	CG2	THR A 129	7.592	57.541	9.015	1.00	0.00	A	C
ATOM	781	C	THR A 129	10.063	59.127	8.736	1.00	0.00	A	C
ATOM	782	O	THR A 129	10.952	58.962	7.905	1.00	0.00	A	O
ATOM	945	N	HIS A 150	24.273	77.362	2.317	1.00	0.00	A	N
ATOM	946	CA	HIS A 150	24.879	78.273	1.381	1.00	0.00	A	C
ATOM	947	ND1	HIS A 150	23.028	78.211	-1.402	1.00	0.00	A	N

Figure 9

ATOM	948	CG	HIS	A	150	23.902	77.315	-0.825	1.00	0.00	A	C
ATOM	949	CB	HIS	A	150	25.115	77.706	-0.037	1.00	0.00	A	C
ATOM	950	NE2	HIS	A	150	22.316	76.178	-1.957	1.00	0.00	A	N
ATOM	951	CD2	HIS	A	150	23.451	76.079	-1.174	1.00	0.00	A	C
ATOM	952	CE1	HIS	A	150	22.101	77.476	-2.067	1.00	0.00	A	C
ATOM	953	C	HIS	A	150	24.098	79.553	1.292	1.00	0.00	A	C
ATOM	954	O	HIS	A	150	24.685	80.620	1.114	1.00	0.00	A	O
ATOM	1174	N	VAL	A	181	11.087	71.181	4.799	1.00	0.00	A	N
ATOM	1175	CA	VAL	A	181	10.648	69.833	5.059	1.00	0.00	A	C
ATOM	1176	CB	VAL	A	181	11.121	69.217	6.358	1.00	0.00	A	C
ATOM	1177	CG1	VAL	A	181	12.658	69.271	6.367	1.00	0.00	A	C
ATOM	1178	CG2	VAL	A	181	10.445	69.846	7.583	1.00	0.00	A	C
ATOM	1179	C	VAL	A	181	9.141	69.714	4.942	1.00	0.00	A	C
ATOM	1180	O	VAL	A	181	8.631	68.694	4.481	1.00	0.00	A	O
ATOM	1181	N	VAL	A	182	8.378	70.730	5.390	1.00	0.00	A	N
ATOM	1182	CA	VAL	A	182	6.943	70.651	5.305	1.00	0.00	A	C
ATOM	1183	CB	VAL	A	182	6.239	71.512	6.332	1.00	0.00	A	C
ATOM	1184	CG1	VAL	A	182	6.713	72.974	6.254	1.00	0.00	A	C
ATOM	1185	CG2	VAL	A	182	4.722	71.336	6.144	1.00	0.00	A	C
ATOM	1186	C	VAL	A	182	6.380	70.913	3.919	1.00	0.00	A	C
ATOM	1187	O	VAL	A	182	5.526	70.174	3.436	1.00	0.00	A	O
ATOM	1199	N	GLN	A	184	8.234	71.382	0.946	1.00	0.00	A	N
ATOM	1200	CA	GLN	A	184	9.158	70.859	-0.051	1.00	0.00	A	C
ATOM	1201	CB	GLN	A	184	8.544	70.149	-1.288	1.00	0.00	A	C
ATOM	1202	CG	GLN	A	184	9.491	69.172	-2.012	1.00	0.00	A	C
ATOM	1203	CD	GLN	A	184	9.134	69.142	-3.492	1.00	0.00	A	C
ATOM	1204	OE1	GLN	A	184	8.162	69.754	-3.929	1.00	0.00	A	O
ATOM	1205	NE2	GLN	A	184	9.954	68.405	-4.289	1.00	0.00	A	N
ATOM	1206	C	GLN	A	184	9.992	71.978	-0.626	1.00	0.00	A	C
ATOM	1207	O	GLN	A	184	10.940	71.736	-1.373	1.00	0.00	A	O
ATOM	1285	N	ASN	A	193	5.527	85.740	2.761	1.00	0.00	A	N
ATOM	1286	CA	ASN	A	193	4.868	84.645	3.430	1.00	0.00	A	C
ATOM	1287	CB	ASN	A	193	4.588	83.457	2.492	1.00	0.00	A	C
ATOM	1288	CG	ASN	A	193	3.531	83.872	1.478	1.00	0.00	A	C
ATOM	1289	OD1	ASN	A	193	3.410	83.266	0.413	1.00	0.00	A	O
ATOM	1290	ND2	ASN	A	193	2.742	84.930	1.809	1.00	0.00	A	N
ATOM	1291	C	ASN	A	193	5.778	84.140	4.504	1.00	0.00	A	C
ATOM	1292	O	ASN	A	193	5.347	83.806	5.609	1.00	0.00	A	O
ATOM	1312	N	THR	A	196	6.058	86.709	7.460	1.00	0.00	A	N
ATOM	1313	CA	THR	A	196	4.926	86.734	8.344	1.00	0.00	A	C
ATOM	1314	CB	THR	A	196	3.597	86.697	7.635	1.00	0.00	A	C
ATOM	1315	OG1	THR	A	196	3.431	85.485	6.916	1.00	0.00	A	O
ATOM	1316	CG2	THR	A	196	3.527	87.896	6.675	1.00	0.00	A	C
ATOM	1317	C	THR	A	196	4.983	85.593	9.314	1.00	0.00	A	C
ATOM	1318	O	THR	A	196	4.649	85.758	10.488	1.00	0.00	A	O
ATOM	1335	N	LYS	A	199	7.638	86.189	11.835	1.00	0.00	A	N
ATOM	1336	CA	LYS	A	199	7.192	87.198	12.753	1.00	0.00	A	C
ATOM	1337	CB	LYS	A	199	6.340	88.271	12.055	1.00	0.00	A	C
ATOM	1338	CG	LYS	A	199	5.838	89.373	12.989	1.00	0.00	A	C
ATOM	1339	CD	LYS	A	199	5.210	90.555	12.249	1.00	0.00	A	C
ATOM	1340	CE	LYS	A	199	4.633	91.626	13.175	1.00	0.00	A	C
ATOM	1341	NZ	LYS	A	199	4.048	92.726	12.375	1.00	0.00	A	N
ATOM	1342	C	LYS	A	199	6.335	86.603	13.825	1.00	0.00	A	C
ATOM	1343	O	LYS	A	199	6.463	86.957	14.999	1.00	0.00	A	O
ATOM	1344	N	ARG	A	200	5.430	85.687	13.423	1.00	0.00	A	N
ATOM	1345	CA	ARG	A	200	4.464	85.084	14.293	1.00	0.00	A	C
ATOM	1346	CB	ARG	A	200	3.478	84.202	13.512	1.00	0.00	A	C
ATOM	1347	CG	ARG	A	200	2.063	84.236	14.083	1.00	0.00	A	C
ATOM	1348	CD	ARG	A	200	1.428	85.614	13.865	1.00	0.00	A	C
ATOM	1349	NE	ARG	A	200	-0.015	85.534	14.221	1.00	0.00	A	N
ATOM	1350	CZ	ARG	A	200	-0.795	86.651	14.149	1.00	0.00	A	C
ATOM	1351	NH1	ARG	A	200	-0.252	87.839	13.753	1.00	0.00	A	N
ATOM	1352	NH2	ARG	A	200	-2.117	86.582	14.479	1.00	0.00	A	N
ATOM	1353	C	ARG	A	200	5.179	84.227	15.301	1.00	0.00	A	C
ATOM	1354	O	ARG	A	200	4.799	84.191	16.470	1.00	0.00	A	O
ATOM	1355	N	PHE	A	201	6.238	83.508	14.863	1.00	0.00	A	N
ATOM	1356	CA	PHE	A	201	6.971	82.659	15.763	1.00	0.00	A	C
ATOM	1357	CB	PHE	A	201	7.930	81.661	15.095	1.00	0.00	A	C
ATOM	1358	CG	PHE	A	201	7.015	80.708	14.419	1.00	0.00	A	C
ATOM	1359	CD1	PHE	A	201	6.033	80.083	15.150	1.00	0.00	A	C

Figure 9

ATOM	1360	CD2	PHE	A	201	7.156	80.408	13.087	1.00	0.00	A	C
ATOM	1361	CE1	PHE	A	201	5.165	79.203	14.555	1.00	0.00	A	C
ATOM	1362	CE2	PHE	A	201	6.294	79.527	12.486	1.00	0.00	A	C
ATOM	1363	CZ	PHE	A	201	5.294	78.929	13.216	1.00	0.00	A	C
ATOM	1364	C	PHE	A	201	7.740	83.456	16.771	1.00	0.00	A	C
ATOM	1365	O	PHE	A	201	7.777	83.084	17.943	1.00	0.00	A	O
ATOM	1391	N	PHE	A	205	7.739	83.736	20.997	1.00	0.00	A	N
ATOM	1392	CA	PHE	A	205	8.909	83.559	21.816	1.00	0.00	A	C
ATOM	1393	CB	PHE	A	205	10.226	83.533	21.013	1.00	0.00	A	C
ATOM	1394	CG	PHE	A	205	11.337	83.405	22.000	1.00	0.00	A	C
ATOM	1395	CD1	PHE	A	205	11.451	82.276	22.779	1.00	0.00	A	C
ATOM	1396	CD2	PHE	A	205	12.266	84.410	22.149	1.00	0.00	A	C
ATOM	1397	CE1	PHE	A	205	12.468	82.150	23.695	1.00	0.00	A	C
ATOM	1398	CE2	PHE	A	205	13.287	84.290	23.062	1.00	0.00	A	C
ATOM	1399	CZ	PHE	A	205	13.390	83.159	23.838	1.00	0.00	A	C
ATOM	1400	C	PHE	A	205	8.989	84.656	22.842	1.00	0.00	A	C
ATOM	1401	O	PHE	A	205	9.293	84.400	24.007	1.00	0.00	A	O
ATOM	1402	N	ARG	A	206	8.699	85.903	22.417	1.00	0.00	A	N
ATOM	1403	CA	ARG	A	206	8.773	87.060	23.268	1.00	0.00	A	C
ATOM	1404	CB	ARG	A	206	8.552	88.375	22.504	1.00	0.00	A	C
ATOM	1405	CG	ARG	A	206	8.736	89.619	23.376	1.00	0.00	A	C
ATOM	1406	CD	ARG	A	206	8.522	90.936	22.628	1.00	0.00	A	C
ATOM	1407	NE	ARG	A	206	8.735	92.042	23.603	1.00	0.00	A	N
ATOM	1408	CZ	ARG	A	206	9.124	93.274	23.163	1.00	0.00	A	C
ATOM	1409	NH1	ARG	A	206	9.313	93.497	21.829	1.00	0.00	A	N
ATOM	1410	NH2	ARG	A	206	9.326	94.285	24.057	1.00	0.00	A	N
ATOM	1411	C	ARG	A	206	7.751	86.995	24.364	1.00	0.00	A	C
ATOM	1412	O	ARG	A	206	8.057	87.362	25.499	1.00	0.00	A	O
ATOM	1429	N	ASN	A	209	8.651	84.436	26.878	1.00	0.00	A	N
ATOM	1430	CA	ASN	A	209	9.885	84.859	27.476	1.00	0.00	A	C
ATOM	1431	CB	ASN	A	209	10.701	85.728	26.495	1.00	0.00	A	C
ATOM	1432	CG	ASN	A	209	12.162	85.776	26.924	1.00	0.00	A	C
ATOM	1433	OD1	ASN	A	209	12.877	86.732	26.625	1.00	0.00	A	O
ATOM	1434	ND2	ASN	A	209	12.623	84.714	27.636	1.00	0.00	A	N
ATOM	1435	C	ASN	A	209	9.672	85.652	28.731	1.00	0.00	A	C
ATOM	1436	O	ASN	A	209	10.595	85.740	29.537	1.00	0.00	A	O
ATOM	1488	N	CYS	A	216	1.638	82.849	36.272	1.00	0.00	A	N
ATOM	1489	CA	CYS	A	216	0.440	82.199	35.826	1.00	0.00	A	C
ATOM	1490	CB	CYS	A	216	0.299	82.227	34.296	1.00	0.00	A	C
ATOM	1491	SG	CYS	A	216	-1.245	81.461	33.731	1.00	0.00	A	S
ATOM	1492	C	CYS	A	216	0.412	80.757	36.263	1.00	0.00	A	C
ATOM	1493	O	CYS	A	216	-0.647	80.240	36.616	1.00	0.00	A	O
ATOM	1528	N	LEU	A	221	-5.569	81.198	38.441	1.00	0.00	A	N
ATOM	1529	CA	LEU	A	221	-6.723	82.047	38.549	1.00	0.00	A	C
ATOM	1530	CB	LEU	A	221	-7.072	82.378	40.008	1.00	0.00	A	C
ATOM	1531	CG	LEU	A	221	-8.306	83.286	40.157	1.00	0.00	A	C
ATOM	1532	CD2	LEU	A	221	-8.442	83.810	41.598	1.00	0.00	A	C
ATOM	1533	CD1	LEU	A	221	-9.579	82.592	39.652	1.00	0.00	A	C
ATOM	1534	C	LEU	A	221	-6.453	83.348	37.853	1.00	0.00	A	C
ATOM	1535	O	LEU	A	221	-7.357	83.950	37.277	1.00	0.00	A	O
ATOM	1544	N	ILE	A	223	-5.018	83.876	35.118	1.00	0.00	A	N
ATOM	1545	CA	ILE	A	223	-5.173	83.823	33.681	1.00	0.00	A	C
ATOM	1546	CB	ILE	A	223	-4.973	82.425	33.110	1.00	0.00	A	C
ATOM	1547	CG2	ILE	A	223	-6.221	81.543	33.280	1.00	0.00	A	C
ATOM	1548	CG1	ILE	A	223	-4.524	82.505	31.646	1.00	0.00	A	C
ATOM	1549	CD1	ILE	A	223	-3.895	81.193	31.179	1.00	0.00	A	C
ATOM	1550	C	ILE	A	223	-6.490	84.455	33.279	1.00	0.00	A	C
ATOM	1551	O	ILE	A	223	-6.554	85.171	32.282	1.00	0.00	A	O
ATOM	1560	N	CYS	A	225	-8.034	86.766	34.940	1.00	0.00	A	N
ATOM	1561	CA	CYS	A	225	-7.877	88.165	35.216	1.00	0.00	A	C
ATOM	1562	CB	CYS	A	225	-7.068	88.408	36.495	1.00	0.00	A	C
ATOM	1563	SG	CYS	A	225	-6.875	90.175	36.837	1.00	0.00	A	S
ATOM	1564	C	CYS	A	225	-7.149	88.821	34.084	1.00	0.00	A	C
ATOM	1565	O	CYS	A	225	-7.512	89.920	33.668	1.00	0.00	A	O
ATOM	1622	N	VAL	A	233	-1.269	84.327	21.958	1.00	0.00	A	N
ATOM	1623	CA	VAL	A	233	-0.683	83.108	21.495	1.00	0.00	A	C
ATOM	1624	CB	VAL	A	233	0.011	82.326	22.554	1.00	0.00	A	C
ATOM	1625	CG1	VAL	A	233	0.789	81.187	21.863	1.00	0.00	A	C

Figure 9

ATOM	1626	CG2	VAL	A	233	0.900	83.282	23.369	1.00	0.00	A	C
ATOM	1627	C	VAL	A	233	-1.691	82.283	20.737	1.00	0.00	A	C
ATOM	1628	O	VAL	A	233	-1.338	81.649	19.745	1.00	0.00	A	O
ATOM	1666	N	LEU	A	239	-3.196	81.919	13.287	1.00	0.00	A	N
ATOM	1667	CA	LEU	A	239	-2.733	82.500	12.054	1.00	0.00	A	C
ATOM	1668	CB	LEU	A	239	-1.911	83.787	12.232	1.00	0.00	A	C
ATOM	1669	CG	LEU	A	239	-1.440	84.363	10.881	1.00	0.00	A	C
ATOM	1670	CD2	LEU	A	239	-0.395	85.476	11.058	1.00	0.00	A	C
ATOM	1671	CD1	LEU	A	239	-2.636	84.803	10.022	1.00	0.00	A	C
ATOM	1672	C	LEU	A	239	-1.849	81.526	11.339	1.00	0.00	A	C
ATOM	1673	O	LEU	A	239	-1.962	81.374	10.120	1.00	0.00	A	O
ATOM	1674	N	THR	A	240	-0.953	80.843	12.085	1.00	0.00	A	N
ATOM	1675	CA	THR	A	240	-0.046	79.916	11.469	1.00	0.00	A	C
ATOM	1676	CB	THR	A	240	1.152	79.521	12.306	1.00	0.00	A	C
ATOM	1677	OG1	THR	A	240	2.101	78.863	11.482	1.00	0.00	A	O
ATOM	1678	CG2	THR	A	240	0.766	78.605	13.475	1.00	0.00	A	C
ATOM	1679	C	THR	A	240	-0.765	78.710	10.948	1.00	0.00	A	C
ATOM	1680	O	THR	A	240	-0.432	78.238	9.862	1.00	0.00	A	O
ATOM	1681	N	ARG	A	241	-1.784	78.226	11.691	1.00	0.00	A	N
ATOM	1682	CA	ARG	A	241	-2.578	77.074	11.356	1.00	0.00	A	C
ATOM	1683	CB	ARG	A	241	-3.634	76.769	12.430	1.00	0.00	A	C
ATOM	1684	CG	ARG	A	241	-3.033	76.079	13.654	1.00	0.00	A	C
ATOM	1685	CD	ARG	A	241	-4.070	75.534	14.635	1.00	0.00	A	C
ATOM	1686	NE	ARG	A	241	-3.343	74.657	15.592	1.00	0.00	A	N
ATOM	1687	CZ	ARG	A	241	-3.481	74.861	16.932	1.00	0.00	A	C
ATOM	1688	NH1	ARG	A	241	-4.254	75.892	17.380	1.00	0.00	A	N
ATOM	1689	NH2	ARG	A	241	-2.823	74.052	17.815	1.00	0.00	A	N
ATOM	1690	C	ARG	A	241	-3.297	77.326	10.061	1.00	0.00	A	C
ATOM	1691	O	ARG	A	241	-3.442	76.422	9.239	1.00	0.00	A	O
ATOM	1718	N	ARG	A	245	-2.885	75.515	6.502	1.00	0.00	A	N
ATOM	1719	CA	ARG	A	245	-4.063	74.904	5.930	1.00	0.00	A	C
ATOM	1720	CB	ARG	A	245	-5.348	75.356	6.643	1.00	0.00	A	C
ATOM	1721	CG	ARG	A	245	-6.611	74.619	6.199	1.00	0.00	A	C
ATOM	1722	CD	ARG	A	245	-7.869	75.095	6.928	1.00	0.00	A	C
ATOM	1723	NE	ARG	A	245	-9.024	74.307	6.412	1.00	0.00	A	N
ATOM	1724	CZ	ARG	A	245	-10.212	74.324	7.084	1.00	0.00	A	C
ATOM	1725	NH1	ARG	A	245	-10.344	75.070	8.221	1.00	0.00	A	N
ATOM	1726	NH2	ARG	A	245	-11.270	73.597	6.620	1.00	0.00	A	N
ATOM	1727	C	ARG	A	245	-4.194	75.263	4.480	1.00	0.00	A	C
ATOM	1728	O	ARG	A	245	-4.606	74.431	3.671	1.00	0.00	A	O
ATOM	1791	N	ALA	A	253	-4.353	69.396	-4.026	1.00	0.00	A	N
ATOM	1792	CA	ALA	A	253	-4.612	69.414	-5.436	1.00	0.00	A	C
ATOM	1793	CB	ALA	A	253	-4.813	70.840	-5.972	1.00	0.00	A	C
ATOM	1794	C	ALA	A	253	-3.488	68.797	-6.235	1.00	0.00	A	C
ATOM	1795	O	ALA	A	253	-3.699	67.868	-7.011	1.00	0.00	A	O
ATOM	1802	N	LEU	A	255	-1.130	66.902	-5.401	1.00	0.00	A	N
ATOM	1803	CA	LEU	A	255	-0.537	65.768	-4.757	1.00	0.00	A	C
ATOM	1804	CB	LEU	A	255	-1.336	65.294	-3.524	1.00	0.00	A	C
ATOM	1805	CG	LEU	A	255	-0.746	64.077	-2.787	1.00	0.00	A	C
ATOM	1806	CD2	LEU	A	255	-1.712	63.550	-1.715	1.00	0.00	A	C
ATOM	1807	CD1	LEU	A	255	0.649	64.388	-2.223	1.00	0.00	A	C
ATOM	1808	C	LEU	A	255	-0.464	64.630	-5.710	1.00	0.00	A	C
ATOM	1809	O	LEU	A	255	-1.342	64.442	-6.549	1.00	0.00	A	O
ATOM	1818	N	VAL	A	257	0.365	60.554	-5.320	1.00	0.00	A	N
ATOM	1819	CA	VAL	A	257	0.639	59.392	-4.525	1.00	0.00	A	C
ATOM	1820	CB	VAL	A	257	-0.592	58.523	-4.406	1.00	0.00	A	C
ATOM	1821	CG1	VAL	A	257	-0.321	57.265	-3.564	1.00	0.00	A	C
ATOM	1822	CG2	VAL	A	257	-1.721	59.401	-3.841	1.00	0.00	A	C
ATOM	1823	C	VAL	A	257	1.717	58.671	-5.288	1.00	0.00	A	C
ATOM	1824	O	VAL	A	257	1.867	58.869	-6.487	1.00	0.00	A	O
ATOM	1848	N	ARG	A	261	6.810	64.243	-1.812	1.00	0.00	A	N
ATOM	1849	CA	ARG	A	261	7.922	65.148	-1.705	1.00	0.00	A	C
ATOM	1850	CB	ARG	A	261	7.645	66.401	-2.534	1.00	0.00	A	C
ATOM	1851	CG	ARG	A	261	7.245	66.100	-3.980	1.00	0.00	A	C
ATOM	1852	CD	ARG	A	261	8.403	65.676	-4.882	1.00	0.00	A	C
ATOM	1853	NE	ARG	A	261	7.834	65.420	-6.234	1.00	0.00	A	N
ATOM	1854	CZ	ARG	A	261	8.661	65.300	-7.314	1.00	0.00	A	C
ATOM	1855	NH1	ARG	A	261	10.010	65.421	-7.152	1.00	0.00	A	N
ATOM	1856	NH2	ARG	A	261	8.138	65.059	-8.551	1.00	0.00	A	N

507/514

Figure 9

ATOM	1857	C	ARG A 261	8.223	65.627	-0.305	1.00	0.00	A	C
ATOM	1858	O	ARG A 261	9.373	65.910	0.028	1.00	0.00	A	O
ATOM	1919	N	ILE A 269	-0.970	61.200	2.285	1.00	0.00	A	N
ATOM	1920	CA	ILE A 269	-1.010	59.852	1.780	1.00	0.00	A	C
ATOM	1921	CB	ILE A 269	0.232	59.422	1.029	1.00	0.00	A	C
ATOM	1922	CG2	ILE A 269	1.435	59.337	1.974	1.00	0.00	A	C
ATOM	1923	CG1	ILE A 269	-0.029	58.108	0.274	1.00	0.00	A	C
ATOM	1924	CD1	ILE A 269	1.119	57.710	-0.651	1.00	0.00	A	C
ATOM	1925	C	ILE A 269	-1.301	58.900	2.893	1.00	0.00	A	C
ATOM	1926	O	ILE A 269	-1.905	57.852	2.668	1.00	0.00	A	O
ATOM	1953	N	GLN A 273	-4.391	55.737	3.574	1.00	0.00	A	N
ATOM	1954	CA	GLN A 273	-4.386	54.513	4.346	1.00	0.00	A	C
ATOM	1955	CB	GLN A 273	-2.982	54.033	4.748	1.00	0.00	A	C
ATOM	1956	CG	GLN A 273	-2.097	53.640	3.566	1.00	0.00	A	C
ATOM	1957	CD	GLN A 273	-0.756	53.195	4.131	1.00	0.00	A	C
ATOM	1958	OE1	GLN A 273	0.190	52.927	3.391	1.00	0.00	A	O
ATOM	1959	NE2	GLN A 273	-0.671	53.110	5.486	1.00	0.00	A	N
ATOM	1960	C	GLN A 273	-5.092	54.905	5.611	1.00	0.00	A	C
ATOM	1961	O	GLN A 273	-5.454	56.055	5.733	1.00	0.00	A	O
ATOM	1980	N	ASP A 276	-10.503	54.096	5.979	1.00	0.00	A	N
ATOM	1981	CA	ASP A 276	-11.551	53.135	6.109	1.00	0.00	A	C
ATOM	1982	CB	ASP A 276	-11.143	51.747	5.584	1.00	0.00	A	C
ATOM	1983	CG	ASP A 276	-10.883	51.840	4.088	1.00	0.00	A	C
ATOM	1984	OD1	ASP A 276	-11.331	52.837	3.464	1.00	0.00	A	O
ATOM	1985	OD2	ASP A 276	-10.221	50.912	3.551	1.00	0.00	A	O
ATOM	1986	C	ASP A 276	-11.751	52.983	7.586	1.00	0.00	A	C
ATOM	1987	O	ASP A 276	-12.874	53.012	8.078	1.00	0.00	A	O
ATOM	2005	N	LYS A 279	-11.708	56.005	12.722	1.00	0.00	A	N
ATOM	2006	CA	LYS A 279	-11.327	56.473	14.047	1.00	0.00	A	C
ATOM	2007	CB	LYS A 279	-10.818	55.342	14.966	1.00	0.00	A	C
ATOM	2008	CG	LYS A 279	-11.806	54.191	15.208	1.00	0.00	A	C
ATOM	2009	CD	LYS A 279	-11.894	53.182	14.055	1.00	0.00	A	C
ATOM	2010	CE	LYS A 279	-12.965	52.107	14.237	1.00	0.00	A	C
ATOM	2011	NZ	LYS A 279	-13.078	51.301	13.000	1.00	0.00	A	N
ATOM	2012	C	LYS A 279	-10.179	57.442	13.877	1.00	0.00	A	C
ATOM	2013	O	LYS A 279	-10.242	58.562	14.377	1.00	0.00	A	O
ATOM	2040	N	ASN A 283	-5.444	63.397	10.665	1.00	0.00	A	N
ATOM	2041	CA	ASN A 283	-6.527	64.164	10.109	1.00	0.00	A	C
ATOM	2042	CB	ASN A 283	-7.661	64.384	11.134	1.00	0.00	A	C
ATOM	2043	CG	ASN A 283	-8.967	64.743	10.431	1.00	0.00	A	C
ATOM	2044	OD1	ASN A 283	-9.887	65.276	11.051	1.00	0.00	A	O
ATOM	2045	ND2	ASN A 283	-9.052	64.446	9.108	1.00	0.00	A	N
ATOM	2046	C	ASN A 283	-5.929	65.499	9.785	1.00	0.00	A	C
ATOM	2047	O	ASN A 283	-4.804	65.765	10.193	1.00	0.00	A	O
ATOM	2065	N	ASN A 286	-4.945	67.501	12.804	1.00	0.00	A	N
ATOM	2066	CA	ASN A 286	-3.755	66.962	13.384	1.00	0.00	A	C
ATOM	2067	CB	ASN A 286	-3.806	65.428	13.397	1.00	0.00	A	C
ATOM	2068	CG	ASN A 286	-2.659	64.928	14.241	1.00	0.00	A	C
ATOM	2069	OD1	ASN A 286	-2.109	63.866	13.960	1.00	0.00	A	O
ATOM	2070	ND2	ASN A 286	-2.296	65.706	15.295	1.00	0.00	A	N
ATOM	2071	C	ASN A 286	-2.567	67.375	12.583	1.00	0.00	A	C
ATOM	2072	O	ASN A 286	-1.498	67.579	13.145	1.00	0.00	A	O
ATOM	2081	N	VAL A 288	-2.195	70.159	10.806	1.00	0.00	A	N
ATOM	2082	CA	VAL A 288	-1.933	71.545	11.066	1.00	0.00	A	C
ATOM	2083	CB	VAL A 288	-3.193	72.350	11.018	1.00	0.00	A	C
ATOM	2084	CG1	VAL A 288	-2.843	73.807	11.303	1.00	0.00	A	C
ATOM	2085	CG2	VAL A 288	-3.855	72.140	9.645	1.00	0.00	A	C
ATOM	2086	C	VAL A 288	-1.290	71.700	12.414	1.00	0.00	A	C
ATOM	2087	O	VAL A 288	-0.396	72.530	12.593	1.00	0.00	A	O
ATOM	2088	N	GLY A 289	-1.737	70.887	13.393	1.00	0.00	A	N
ATOM	2089	CA	GLY A 289	-1.214	70.930	14.731	1.00	0.00	A	C
ATOM	2090	C	GLY A 289	0.224	70.494	14.758	1.00	0.00	A	C
ATOM	2091	O	GLY A 289	1.052	71.111	15.427	1.00	0.00	A	O
ATOM	2099	N	VAL A 291	2.315	70.485	12.259	1.00	0.00	A	N
ATOM	2100	CA	VAL A 291	3.131	71.414	11.522	1.00	0.00	A	C
ATOM	2101	CB	VAL A 291	2.465	71.923	10.269	1.00	0.00	A	C
ATOM	2102	CG1	VAL A 291	3.318	73.039	9.643	1.00	0.00	A	C

Figure 9

ATOM	2103	CG2	VAL	A	291	2.302	70.737	9.305	1.00	0.00	A	C
ATOM	2104	C	VAL	A	291	3.530	72.578	12.385	1.00	0.00	A	C
ATOM	2105	O	VAL	A	291	4.692	72.982	12.356	1.00	0.00	A	O
ATOM	2106	N	ALA	A	292	2.588	73.116	13.192	1.00	0.00	A	N
ATOM	2107	CA	ALA	A	292	2.849	74.236	14.061	1.00	0.00	A	C
ATOM	2108	CB	ALA	A	292	1.587	74.729	14.792	1.00	0.00	A	C
ATOM	2109	C	ALA	A	292	3.846	73.846	15.110	1.00	0.00	A	C
ATOM	2110	O	ALA	A	292	4.720	74.640	15.448	1.00	0.00	A	O
ATOM	2138	N	VAL	A	296	7.477	75.506	15.745	1.00	0.00	A	N
ATOM	2139	CA	VAL	A	296	7.823	76.094	17.009	1.00	0.00	A	C
ATOM	2140	CB	VAL	A	296	6.718	75.992	18.019	1.00	0.00	A	C
ATOM	2141	CG1	VAL	A	296	7.236	76.513	19.370	1.00	0.00	A	C
ATOM	2142	CG2	VAL	A	296	5.501	76.771	17.489	1.00	0.00	A	C
ATOM	2143	C	VAL	A	296	9.036	75.453	17.614	1.00	0.00	A	C
ATOM	2144	O	VAL	A	296	9.962	76.136	18.048	1.00	0.00	A	O
ATOM	2235	N	GLY	A	309	26.439	80.074	19.863	1.00	0.00	A	N
ATOM	2236	CA	GLY	A	309	27.649	79.469	19.375	1.00	0.00	A	C
ATOM	2237	C	GLY	A	309	28.573	80.517	18.863	1.00	0.00	A	C
ATOM	2238	O	GLY	A	309	29.755	80.482	19.190	1.00	0.00	A	O
ATOM	2384	N	ASP	A	328	39.773	73.738	7.153	1.00	0.00	A	N
ATOM	2385	CA	ASP	A	328	40.656	73.867	6.014	1.00	0.00	A	C
ATOM	2386	CB	ASP	A	328	41.853	74.790	6.298	1.00	0.00	A	C
ATOM	2387	CG	ASP	A	328	41.342	76.214	6.445	1.00	0.00	A	C
ATOM	2388	OD1	ASP	A	328	40.142	76.448	6.137	1.00	0.00	A	O
ATOM	2389	OD2	ASP	A	328	42.142	77.087	6.874	1.00	0.00	A	O
ATOM	2390	C	ASP	A	328	41.235	72.539	5.625	1.00	0.00	A	C
ATOM	2391	O	ASP	A	328	41.377	72.241	4.440	1.00	0.00	A	O
ATOM	2392	N	HIS	A	329	41.628	71.720	6.615	1.00	0.00	A	N
ATOM	2393	CA	HIS	A	329	42.227	70.453	6.309	1.00	0.00	A	C
ATOM	2394	ND1	HIS	A	329	44.745	68.300	6.765	1.00	0.00	A	N
ATOM	2395	CG	HIS	A	329	43.469	68.454	7.263	1.00	0.00	A	C
ATOM	2396	CB	HIS	A	329	42.833	69.781	7.553	1.00	0.00	A	C
ATOM	2397	NE2	HIS	A	329	43.912	66.254	7.020	1.00	0.00	A	N
ATOM	2398	CD2	HIS	A	329	42.976	67.194	7.413	1.00	0.00	A	C
ATOM	2399	CE1	HIS	A	329	44.958	66.966	6.641	1.00	0.00	A	C
ATOM	2400	C	HIS	A	329	41.243	69.478	5.723	1.00	0.00	A	C
ATOM	2401	O	HIS	A	329	41.501	68.876	4.683	1.00	0.00	A	O
ATOM	2432	N	HIS	A	334	36.747	75.276	-1.481	1.00	0.00	A	N
ATOM	2433	CA	HIS	A	334	35.801	75.140	-2.559	1.00	0.00	A	C
ATOM	2434	ND1	HIS	A	334	38.891	74.830	-3.764	1.00	0.00	A	N
ATOM	2435	CG	HIS	A	334	37.629	75.008	-4.288	1.00	0.00	A	C
ATOM	2436	CB	HIS	A	334	36.396	74.355	-3.739	1.00	0.00	A	C
ATOM	2437	NE2	HIS	A	334	39.108	76.228	-5.478	1.00	0.00	A	N
ATOM	2438	CD2	HIS	A	334	37.779	75.865	-5.336	1.00	0.00	A	C
ATOM	2439	CE1	HIS	A	334	39.735	75.583	-4.513	1.00	0.00	A	C
ATOM	2440	C	HIS	A	334	34.507	74.465	-2.184	1.00	0.00	A	C
ATOM	2441	O	HIS	A	334	33.455	75.101	-2.149	1.00	0.00	A	O
ATOM	2604	N	ILE	A	355	29.040	73.639	23.094	1.00	0.00	A	N
ATOM	2605	CA	ILE	A	355	28.158	74.780	23.150	1.00	0.00	A	C
ATOM	2606	CB	ILE	A	355	27.922	75.596	21.893	1.00	0.00	A	C
ATOM	2607	CG2	ILE	A	355	27.193	74.860	20.765	1.00	0.00	A	C
ATOM	2608	CG1	ILE	A	355	27.144	76.833	22.343	1.00	0.00	A	C
ATOM	2609	CD1	ILE	A	355	26.162	77.302	21.296	1.00	0.00	A	C
ATOM	2610	C	ILE	A	355	26.821	74.361	23.709	1.00	0.00	A	C
ATOM	2611	O	ILE	A	355	26.312	75.023	24.615	1.00	0.00	A	O
ATOM	2644	N	SER	A	359	25.471	75.873	27.379	1.00	0.00	A	N
ATOM	2645	CA	SER	A	359	24.389	76.822	27.323	1.00	0.00	A	C
ATOM	2646	CB	SER	A	359	23.936	77.134	25.888	1.00	0.00	A	C
ATOM	2647	OG	SER	A	359	22.923	78.128	25.912	1.00	0.00	A	O
ATOM	2648	C	SER	A	359	23.184	76.386	28.090	1.00	0.00	A	C
ATOM	2649	O	SER	A	359	22.555	77.253	28.701	1.00	0.00	A	O
ATOM	2666	N	VAL	A	362	17.353	74.241	27.775	1.00	0.00	A	N
ATOM	2667	CA	VAL	A	362	16.097	73.907	28.395	1.00	0.00	A	C
ATOM	2668	CB	VAL	A	362	15.352	72.975	27.460	1.00	0.00	A	C
ATOM	2669	CG1	VAL	A	362	13.906	72.782	27.904	1.00	0.00	A	C
ATOM	2670	CG2	VAL	A	362	15.438	73.521	26.023	1.00	0.00	A	C
ATOM	2671	C	VAL	A	362	16.453	73.218	29.704	1.00	0.00	A	C
ATOM	2672	O	VAL	A	362	16.457	71.985	29.732	1.00	0.00	A	O

Figure 9

ATOM	2687	N	GLY A 365	13.617	70.036	30.817	1.00	0.00	A	N
ATOM	2688	CA	GLY A 365	13.149	69.995	29.451	1.00	0.00	A	C
ATOM	2689	C	GLY A 365	11.642	70.238	29.470	1.00	0.00	A	C
ATOM	2690	O	GLY A 365	11.084	70.828	30.396	1.00	0.00	A	O
ATOM	2691	N	VAL A 366	10.922	69.849	28.408	1.00	0.00	A	N
ATOM	2692	CA	VAL A 366	9.487	70.016	28.468	1.00	0.00	A	C
ATOM	2693	CB	VAL A 366	8.816	69.740	27.151	1.00	0.00	A	C
ATOM	2694	CG1	VAL A 366	7.298	69.921	27.307	1.00	0.00	A	C
ATOM	2695	CG2	VAL A 366	9.442	70.657	26.088	1.00	0.00	A	C
ATOM	2696	C	VAL A 366	8.977	69.026	29.505	1.00	0.00	A	C
ATOM	2697	O	VAL A 366	9.552	67.949	29.652	1.00	0.00	A	O
ATOM	2734	N	THR A 372	1.110	56.181	34.794	1.00	0.00	A	N
ATOM	2735	CA	THR A 372	0.249	55.408	35.641	1.00	0.00	A	C
ATOM	2736	CB	THR A 372	0.222	53.954	35.245	1.00	0.00	A	C
ATOM	2737	OG1	THR A 372	-0.872	53.276	35.847	1.00	0.00	A	O
ATOM	2738	CG2	THR A 372	1.553	53.309	35.666	1.00	0.00	A	C
ATOM	2739	C	THR A 372	0.835	55.533	37.010	1.00	0.00	A	C
ATOM	2740	O	THR A 372	1.874	56.173	37.157	1.00	0.00	A	O
ATOM	2749	N	THR A 374	3.048	54.853	39.710	1.00	0.00	A	N
ATOM	2750	CA	THR A 374	4.303	54.168	39.671	1.00	0.00	A	C
ATOM	2751	CB	THR A 374	5.237	54.721	38.630	1.00	0.00	A	C
ATOM	2752	OG1	THR A 374	6.342	53.852	38.430	1.00	0.00	A	O
ATOM	2753	CG2	THR A 374	5.721	56.108	39.085	1.00	0.00	A	C
ATOM	2754	C	THR A 374	4.940	54.328	41.010	1.00	0.00	A	C
ATOM	2755	O	THR A 374	4.530	55.179	41.789	1.00	0.00	A	O
ATOM	2865	N	MET A 388	9.365	67.118	36.603	1.00	0.00	A	N
ATOM	2866	CA	MET A 388	10.285	68.043	36.001	1.00	0.00	A	C
ATOM	2867	CB	MET A 388	10.393	69.375	36.762	1.00	0.00	A	C
ATOM	2868	CG	MET A 388	9.116	70.210	36.676	1.00	0.00	A	C
ATOM	2869	SD	MET A 388	9.180	71.795	37.563	1.00	0.00	A	S
ATOM	2870	CE	MET A 388	7.494	72.296	37.108	1.00	0.00	A	C
ATOM	2871	C	MET A 388	11.647	67.401	36.007	1.00	0.00	A	C
ATOM	2872	O	MET A 388	12.209	67.120	37.064	1.00	0.00	A	O
ATOM	2873	N	ALA A 389	12.228	67.162	34.809	1.00	0.00	A	N
ATOM	2874	CA	ALA A 389	13.518	66.524	34.730	1.00	0.00	A	C
ATOM	2875	CB	ALA A 389	13.699	65.667	33.465	1.00	0.00	A	C
ATOM	2876	C	ALA A 389	14.551	67.603	34.688	1.00	0.00	A	C
ATOM	2877	O	ALA A 389	14.462	68.515	33.872	1.00	0.00	A	O
ATOM	2878	N	LEU A 390	15.578	67.544	35.561	1.00	0.00	A	N
ATOM	2879	CA	LEU A 390	16.535	68.613	35.509	1.00	0.00	A	C
ATOM	2880	CB	LEU A 390	17.206	68.941	36.866	1.00	0.00	A	C
ATOM	2881	CG	LEU A 390	18.156	70.159	36.815	1.00	0.00	A	C
ATOM	2882	CD2	LEU A 390	18.871	70.406	38.150	1.00	0.00	A	C
ATOM	2883	CD1	LEU A 390	17.409	71.416	36.386	1.00	0.00	A	C
ATOM	2884	C	LEU A 390	17.606	68.225	34.535	1.00	0.00	A	C
ATOM	2885	O	LEU A 390	18.464	67.404	34.820	1.00	0.00	A	O
ATOM	2940	N	ASP A 398	29.359	67.709	37.900	1.00	0.00	A	N
ATOM	2941	CA	ASP A 398	30.674	68.112	38.330	1.00	0.00	A	C
ATOM	2942	CB	ASP A 398	30.744	68.391	39.842	1.00	0.00	A	C
ATOM	2943	CG	ASP A 398	30.001	69.690	40.124	1.00	0.00	A	C
ATOM	2944	OD1	ASP A 398	30.373	70.728	39.517	1.00	0.00	A	O
ATOM	2945	OD2	ASP A 398	29.058	69.662	40.960	1.00	0.00	A	O
ATOM	2946	C	ASP A 398	31.684	67.054	38.028	1.00	0.00	A	C
ATOM	2947	O	ASP A 398	32.811	67.370	37.649	1.00	0.00	A	O
ATOM	2999	N	ASN A 405	30.881	75.157	34.689	1.00	0.00	A	N
ATOM	3000	CA	ASN A 405	30.386	76.453	34.344	1.00	0.00	A	C
ATOM	3001	CB	ASN A 405	30.207	77.367	35.567	1.00	0.00	A	C
ATOM	3002	CG	ASN A 405	29.063	76.824	36.409	1.00	0.00	A	C
ATOM	3003	OD1	ASN A 405	28.978	77.092	37.606	1.00	0.00	A	O
ATOM	3004	ND2	ASN A 405	28.158	76.037	35.770	1.00	0.00	A	N
ATOM	3005	C	ASN A 405	31.346	77.153	33.429	1.00	0.00	A	C
ATOM	3006	O	ASN A 405	31.227	78.363	33.235	1.00	0.00	A	O
ATOM	3007	N	ILE A 406	32.285	76.423	32.795	1.00	0.00	A	N
ATOM	3008	CA	ILE A 406	33.199	77.093	31.905	1.00	0.00	A	C
ATOM	3009	CB	ILE A 406	34.659	76.980	32.280	1.00	0.00	A	C
ATOM	3010	CG2	ILE A 406	35.174	75.576	31.926	1.00	0.00	A	C
ATOM	3011	CG1	ILE A 406	35.478	78.082	31.587	1.00	0.00	A	C
ATOM	3012	CD1	ILE A 406	36.911	78.188	32.107	1.00	0.00	A	C
ATOM	3013	C	ILE A 406	33.010	76.457	30.566	1.00	0.00	A	C

Figure 9

ATOM	3014	O	ILE A 406	32.488	75.344	30.507	1.00	0.00	A	O
ATOM	3041	N	GLY A 410	37.267	70.719	25.577	1.00	0.00	A	N
ATOM	3042	CA	GLY A 410	38.058	69.637	26.095	1.00	0.00	A	C
ATOM	3043	C	GLY A 410	37.203	68.636	26.821	1.00	0.00	A	C
ATOM	3044	O	GLY A 410	37.631	67.493	26.987	1.00	0.00	A	O
ATOM	3082	N	LYS A 415	42.723	62.415	25.259	1.00	0.00	A	N
ATOM	3083	CA	LYS A 415	44.139	62.679	25.331	1.00	0.00	A	C
ATOM	3084	CB	LYS A 415	44.945	61.425	25.729	1.00	0.00	A	C
ATOM	3085	CG	LYS A 415	44.606	60.184	24.899	1.00	0.00	A	C
ATOM	3086	CD	LYS A 415	45.603	59.034	25.040	1.00	0.00	A	C
ATOM	3087	CE	LYS A 415	45.228	57.813	24.196	1.00	0.00	A	C
ATOM	3088	NZ	LYS A 415	46.230	56.741	24.379	1.00	0.00	A	N
ATOM	3089	C	LYS A 415	44.627	63.167	24.001	1.00	0.00	A	C
ATOM	3090	O	LYS A 415	45.421	64.105	23.930	1.00	0.00	A	O
ATOM	3091	N	ASN A 416	44.141	62.552	22.902	1.00	0.00	A	N
ATOM	3092	CA	ASN A 416	44.459	62.945	21.557	1.00	0.00	A	C
ATOM	3093	CB	ASN A 416	44.526	61.746	20.587	1.00	0.00	A	C
ATOM	3094	CG	ASN A 416	45.421	62.066	19.393	1.00	0.00	A	C
ATOM	3095	OD1	ASN A 416	45.575	61.251	18.484	1.00	0.00	A	O
ATOM	3096	ND2	ASN A 416	46.028	63.283	19.392	1.00	0.00	A	N
ATOM	3097	C	ASN A 416	43.334	63.871	21.171	1.00	0.00	A	C
ATOM	3098	O	ASN A 416	42.695	64.444	22.052	1.00	0.00	A	O
ATOM	3146	N	ASP A 423	27.546	60.146	28.253	1.00	0.00	A	N
ATOM	3147	CA	ASP A 423	26.218	59.715	28.600	1.00	0.00	A	C
ATOM	3148	CB	ASP A 423	26.221	58.531	29.602	1.00	0.00	A	C
ATOM	3149	CG	ASP A 423	26.959	58.863	30.905	1.00	0.00	A	C
ATOM	3150	OD1	ASP A 423	28.200	59.087	30.871	1.00	0.00	A	O
ATOM	3151	OD2	ASP A 423	26.291	58.855	31.972	1.00	0.00	A	O
ATOM	3152	C	ASP A 423	25.456	60.884	29.161	1.00	0.00	A	C
ATOM	3153	O	ASP A 423	24.228	60.933	29.137	1.00	0.00	A	O
ATOM	3252	N	ALA A 436	12.592	64.855	18.779	1.00	0.00	A	N
ATOM	3253	CA	ALA A 436	12.288	64.292	17.491	1.00	0.00	A	C
ATOM	3254	CB	ALA A 436	10.881	64.673	17.001	1.00	0.00	A	C
ATOM	3255	C	ALA A 436	13.261	64.807	16.480	1.00	0.00	A	C
ATOM	3256	O	ALA A 436	13.601	64.138	15.510	1.00	0.00	A	O
ATOM	3270	N	GLY A 439	18.475	64.603	15.250	1.00	0.00	A	N
ATOM	3271	CA	GLY A 439	19.307	64.407	14.092	1.00	0.00	A	C
ATOM	3272	C	GLY A 439	19.349	65.640	13.229	1.00	0.00	A	C
ATOM	3273	O	GLY A 439	20.411	66.003	12.722	1.00	0.00	A	O
ATOM	3287	N	ARG A 442	21.409	68.511	14.885	1.00	0.00	A	N
ATOM	3288	CA	ARG A 442	22.829	68.278	14.884	1.00	0.00	A	C
ATOM	3289	CB	ARG A 442	23.168	66.823	15.249	1.00	0.00	A	C
ATOM	3290	CG	ARG A 442	24.619	66.613	15.678	1.00	0.00	A	C
ATOM	3291	CD	ARG A 442	24.937	65.159	16.036	1.00	0.00	A	C
ATOM	3292	NE	ARG A 442	26.390	65.075	16.349	1.00	0.00	A	N
ATOM	3293	CZ	ARG A 442	26.961	63.858	16.587	1.00	0.00	A	C
ATOM	3294	NH1	ARG A 442	26.198	62.728	16.560	1.00	0.00	A	N
ATOM	3295	NH2	ARG A 442	28.297	63.771	16.849	1.00	0.00	A	N
ATOM	3296	C	ARG A 442	23.349	68.576	13.516	1.00	0.00	A	C
ATOM	3297	O	ARG A 442	24.451	69.101	13.350	1.00	0.00	A	O
ATOM	3368	N	THR A 451	29.956	75.997	7.782	1.00	0.00	A	N
ATOM	3369	CA	THR A 451	29.865	76.805	6.595	1.00	0.00	A	C
ATOM	3370	CB	THR A 451	28.567	76.659	5.831	1.00	0.00	A	C
ATOM	3371	OG1	THR A 451	28.703	77.254	4.550	1.00	0.00	A	O
ATOM	3372	CG2	THR A 451	27.389	77.294	6.582	1.00	0.00	A	C
ATOM	3373	C	THR A 451	30.165	78.248	6.899	1.00	0.00	A	C
ATOM	3374	O	THR A 451	30.810	78.913	6.089	1.00	0.00	A	O
ATOM	3450	N	VAL A 461	33.044	93.815	17.855	1.00	0.00	A	N
ATOM	3451	CA	VAL A 461	33.429	95.203	17.928	1.00	0.00	A	C
ATOM	3452	CB	VAL A 461	32.283	96.138	17.678	1.00	0.00	A	C
ATOM	3453	CG1	VAL A 461	32.771	97.579	17.892	1.00	0.00	A	C
ATOM	3454	CG2	VAL A 461	31.728	95.867	16.269	1.00	0.00	A	C
ATOM	3455	C	VAL A 461	33.944	95.481	19.298	1.00	0.00	A	C
ATOM	3456	O	VAL A 461	35.095	95.882	19.472	1.00	0.00	A	O
ATOM	3457	N	ASP A 462	33.077	95.245	20.309	1.00	0.00	A	N
ATOM	3458	CA	ASP A 462	33.491	95.362	21.671	1.00	0.00	A	C
ATOM	3459	CB	ASP A 462	32.326	95.282	22.676	1.00	0.00	A	C

Figure 9

ATOM	3460	CG	ASP	A	462	32.823	95.694	24.056	1.00	0.00	A	C
ATOM	3461	OD1	ASP	A	462	34.020	96.067	24.181	1.00	0.00	A	O
ATOM	3462	OD2	ASP	A	462	32.000	95.649	25.010	1.00	0.00	A	O
ATOM	3463	C	ASP	A	462	34.335	94.145	21.835	1.00	0.00	A	C
ATOM	3464	O	ASP	A	462	33.850	93.045	21.580	1.00	0.00	A	O
ATOM	3473	N	LEU	A	464	36.875	91.028	22.664	1.00	0.00	A	N
ATOM	3474	CA	LEU	A	464	36.637	89.662	23.038	1.00	0.00	A	C
ATOM	3475	CB	LEU	A	464	37.667	88.699	22.394	1.00	0.00	A	C
ATOM	3476	CG	LEU	A	464	37.605	88.489	20.856	1.00	0.00	A	C
ATOM	3477	CD2	LEU	A	464	38.529	87.331	20.450	1.00	0.00	A	C
ATOM	3478	CD1	LEU	A	464	37.925	89.746	20.023	1.00	0.00	A	C
ATOM	3479	C	LEU	A	464	36.752	89.486	24.518	1.00	0.00	A	C
ATOM	3480	O	LEU	A	464	35.860	88.887	25.114	1.00	0.00	A	O
ATOM	3506	N	ASN	A	468	30.409	89.485	27.882	1.00	0.00	A	N
ATOM	3507	CA	ASN	A	468	29.836	88.592	28.859	1.00	0.00	A	C
ATOM	3508	CB	ASN	A	468	28.907	89.330	29.840	1.00	0.00	A	C
ATOM	3509	CG	ASN	A	468	28.386	88.341	30.867	1.00	0.00	A	C
ATOM	3510	OD1	ASN	A	468	27.228	87.934	30.800	1.00	0.00	A	O
ATOM	3511	ND2	ASN	A	468	29.256	87.942	31.833	1.00	0.00	A	N
ATOM	3512	C	ASN	A	468	29.039	87.516	28.177	1.00	0.00	A	C
ATOM	3513	O	ASN	A	468	28.202	87.779	27.316	1.00	0.00	A	O
ATOM	3528	N	ALA	A	471	24.552	83.369	30.599	1.00	0.00	A	N
ATOM	3529	CA	ALA	A	471	23.235	83.137	30.084	1.00	0.00	A	C
ATOM	3530	CB	ALA	A	471	22.831	81.652	30.080	1.00	0.00	A	C
ATOM	3531	C	ALA	A	471	22.257	83.874	30.936	1.00	0.00	A	C
ATOM	3532	O	ALA	A	471	22.415	83.959	32.152	1.00	0.00	A	O
ATOM	3540	N	THR	A	473	18.683	83.801	32.369	1.00	0.00	A	N
ATOM	3541	CA	THR	A	473	17.659	82.804	32.494	1.00	0.00	A	C
ATOM	3542	CB	THR	A	473	17.993	81.724	33.482	1.00	0.00	A	C
ATOM	3543	OG1	THR	A	473	18.161	82.278	34.780	1.00	0.00	A	O
ATOM	3544	CG2	THR	A	473	19.287	81.030	33.026	1.00	0.00	A	C
ATOM	3545	C	THR	A	473	16.366	83.426	32.906	1.00	0.00	A	C
ATOM	3546	O	THR	A	473	16.310	84.343	33.725	1.00	0.00	A	O
ATOM	3547	N	LYS	A	474	15.274	82.944	32.289	1.00	0.00	A	N
ATOM	3548	CA	LYS	A	474	13.967	83.402	32.638	1.00	0.00	A	C
ATOM	3549	CB	LYS	A	474	13.305	84.275	31.560	1.00	0.00	A	C
ATOM	3550	CG	LYS	A	474	13.955	85.657	31.436	1.00	0.00	A	C
ATOM	3551	CD	LYS	A	474	13.485	86.457	30.219	1.00	0.00	A	C
ATOM	3552	CE	LYS	A	474	14.118	87.847	30.115	1.00	0.00	A	C
ATOM	3553	NZ	LYS	A	474	13.607	88.546	28.914	1.00	0.00	A	N
ATOM	3554	C	LYS	A	474	13.122	82.188	32.848	1.00	0.00	A	C
ATOM	3555	O	LYS	A	474	12.454	81.709	31.933	1.00	0.00	A	O
ATOM	3560	N	ILE	A	476	12.187	78.732	32.854	1.00	0.00	A	N
ATOM	3561	CA	ILE	A	476	12.344	77.549	32.043	1.00	0.00	A	C
ATOM	3562	CB	ILE	A	476	11.005	77.134	31.468	1.00	0.00	A	C
ATOM	3563	CG2	ILE	A	476	10.571	78.190	30.438	1.00	0.00	A	C
ATOM	3564	CG1	ILE	A	476	11.001	75.691	30.930	1.00	0.00	A	C
ATOM	3565	CD1	ILE	A	476	9.608	75.195	30.545	1.00	0.00	A	C
ATOM	3566	C	ILE	A	476	13.363	77.658	30.922	1.00	0.00	A	C
ATOM	3567	O	ILE	A	476	13.842	76.636	30.439	1.00	0.00	A	O
ATOM	3568	N	VAL	A	477	13.639	78.855	30.357	1.00	0.00	A	N
ATOM	3569	CA	VAL	A	477	14.498	78.921	29.189	1.00	0.00	A	C
ATOM	3570	CB	VAL	A	477	13.675	79.288	27.952	1.00	0.00	A	C
ATOM	3571	CG1	VAL	A	477	14.503	79.378	26.654	1.00	0.00	A	C
ATOM	3572	CG2	VAL	A	477	12.539	78.259	27.814	1.00	0.00	A	C
ATOM	3573	C	VAL	A	477	15.569	79.959	29.458	1.00	0.00	A	C
ATOM	3574	O	VAL	A	477	15.401	80.797	30.340	1.00	0.00	A	O
ATOM	3581	N	LEU	A	479	18.779	82.502	27.397	1.00	0.00	A	N
ATOM	3582	CA	LEU	A	479	19.136	83.063	26.123	1.00	0.00	A	C
ATOM	3583	CB	LEU	A	479	18.078	84.094	25.679	1.00	0.00	A	C
ATOM	3584	CG	LEU	A	479	18.137	84.535	24.208	1.00	0.00	A	C
ATOM	3585	CD2	LEU	A	479	17.328	85.820	23.967	1.00	0.00	A	C
ATOM	3586	CD1	LEU	A	479	17.712	83.379	23.290	1.00	0.00	A	C
ATOM	3587	C	LEU	A	479	20.436	83.798	26.317	1.00	0.00	A	C
ATOM	3588	O	LEU	A	479	20.770	84.161	27.443	1.00	0.00	A	O
ATOM	3603	N	SER	A	482	22.707	90.266	24.266	1.00	0.00	A	N
ATOM	3604	CA	SER	A	482	22.756	90.829	22.947	1.00	0.00	A	C
ATOM	3605	CB	SER	A	482	21.953	92.132	22.797	1.00	0.00	A	C

Figure 9

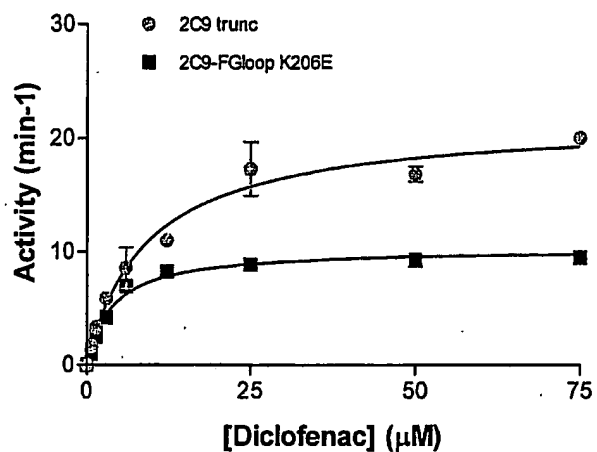
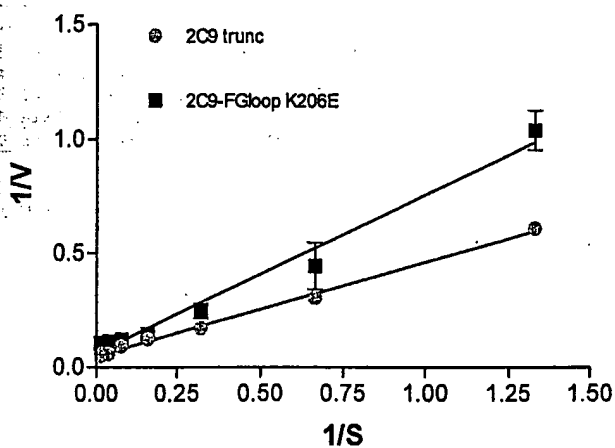
ATOM	3606	OG	SER A 482	22.058	92.615	21.465	1.00	0.00	A	O
ATOM	3607	C	SER A 482	24.179	91.128	22.603	1.00	0.00	A	C
ATOM	3608	O	SER A 482	24.985	91.470	23.467	1.00	0.00	A	O
ATOM	3630	N	ILE A 485	28.457	91.464	15.646	1.00	0.00	A	N
ATOM	3631	CA	ILE A 485	29.664	90.889	15.105	1.00	0.00	A	C
ATOM	3632	CB	ILE A 485	29.609	89.380	15.236	1.00	0.00	A	C
ATOM	3633	CG2	ILE A 485	28.435	88.876	14.380	1.00	0.00	A	C
ATOM	3634	CG1	ILE A 485	30.939	88.670	14.941	1.00	0.00	A	C
ATOM	3635	CD1	ILE A 485	30.834	87.151	15.088	1.00	0.00	A	C
ATOM	3636	C	ILE A 485	29.736	91.231	13.634	1.00	0.00	A	C
ATOM	3637	O	ILE A 485	28.732	91.585	13.019	1.00	0.00	A	O

Sheet 513/514

	10	20	30	40	50
2C9	MDSLVLVLC	LSCLLLSLW	ROSSGRGKLP	PGPTPLPVIG	NILQIGIKDI
2C9trunc	-----	-----	MA KKTSSKGR-P	PGPTPLPVIG	NILQIGIKDI
2C9-FGloop	-----	-----	MA KKTSSKGR-P	PGPTPLPVIG	NILQIGIKDI
2C9-P220	-----	-----	MA KKTSSKGR-P	PGPTPLPVIG	NILQIGIKDI
	60	70	80	90	100
2C9	SKSLTNLSKV	YGPVFTLYFG	LKPIVVLHGY	EAVKEALIDL	GEEFSGRGIF
2C9trunc	SKSLTNLSKV	YGPVFTLYFG	LKPIVVLHGY	EAVKEALIDL	GEEFSGRGIF
2C9-FGloop	SKSLTNLSKV	YGPVFTLYFG	LKPIVVLHGY	EAVKEALIDL	GEEFSGRGIF
2C9-P220	SKSLTNLSKV	YGPVFTLYFG	LKPIVVLHGY	EAVKEALIDL	GEEFSGRGIF
	110	120	130	140	150
2C9	PLAERANRGF	GIVFSNGKKW	KEIRRFSLMT	LRNFGMGKRS	IEDRVQEEAR
2C9trunc	PLAERANRGF	GIVFSNGKKW	KEIRRFSLMT	LRNFGMGKRS	IEDRVQEEAR
2C9-FGloop	PLAERANRGF	GIVFSNGKKW	KEIRRFSLMT	LRNFGMGKRS	IEDRVQEEAR
2C9-P220	PLAERANRGF	GIVFSNGKKW	KEIRRFSLMT	LRNFGMGKRS	IEDRVQEEAR
	160	170	180	190	200
2C9	CLVEELRRTK	ASPCDPTFIL	GCAPCNVICS	IIFHKRFDYK	DQQLNLMEK
2C9trunc	CLVEELRRTK	ASPCDPTFIL	GCAPCNVICS	IIFHKRFDYK	DQQLNLMEK
2C9-FGloop	CLVEELRRTK	ASPCDPTFIL	GCAPCNVICS	IIFHKRFDYK	DQQLNLMEK
2C9-P220	CLVEELRRTK	ASPCDPTFIL	GCAPCNVICS	IIFHKRFDYK	DQQLNLMEK
	210	220	230	240	250
2C9	LNENIKILSS	PWIIQCNNEF	PIIDYFPGTH	NKLLKNVAFM	KSYILEKVKE
2C9trunc	LNENIKILSS	PWIIQCNNEF	PIIDYFPGTH	NKLLKNVAFM	KSYILEKVKE
2C9-FGloop	LNENIKILSS	PWIIQVNNFP	ALLDYFPGTH	NKLLKNVAFM	KSYILEKVKE
2C9-P220	LNENIKILSS	PWIIQCNNEF	TIIDYFPGTH	NKLLKNVAFM	KSYILEKVKE
	260	270	280	290	300
2C9	HQESMDMNNP	QDFIDCFLMK	MEKEKHNQPS	EFTIESLENT	AVDLFGAGTE
2C9trunc	HQESMDMNNP	QDFIDCFLMK	MEKEKHNQPS	EFTIESLENT	AVDLFGAGTE
2C9-FGloop	HQESMDMNNP	QDFIDCFLMK	MEKEKHNQPS	EFTIESLENT	AVDLFGAGTE
2C9-P220	HQESMDMNNP	QDFIDCFLMK	MEKEKHNQPS	EFTIESLENT	AVDLFGAGTE
	310	320	330	340	350
2C9	TTSTTLRYAL	LLLLKHPEVT	AKVQEEIERV	IGRNRSPCMQ	DRSHMPYTDA
2C9trunc	TTSTTLRYAL	LLLLKHPEVT	AKVQEEIERV	IGRNRSPCMQ	DRSHMPYTDA
2C9-FGloop	TTSTTLRYAL	LLLLKHPEVT	AKVQEEIERV	IGRNRSPCMQ	DRSHMPYTDA
2C9-P220	TTSTTLRYAL	LLLLKHPEVT	AKVQEEIERV	IGRNRSPCMQ	DRSHMPYTDA
	360	370	380	390	400
2C9	VVHEVQRYID	LLPTSLPHAV	TCDIKFRNYL	IPKGTTILIS	LTSVLHDNKE
2C9trunc	VVHEVQRYID	LLPTSLPHAV	TCDIKFRNYL	IPKGTTILIS	LTSVLHDNKE
2C9-FGloop	VVHEVQRYID	LLPTSLPHAV	TCDIKFRNYL	IPKGTTILIS	LTSVLHDNKE
2C9-P220	VVHEVQRYID	LLPTSLPHAV	TCDIKFRNYL	IPKGTTILIS	LTSVLHDNKE
	410	420	430	440	450
2C9	FPNPEMFDPH	HFLDEGGNFK	KSKYFMPFSA	GKRICVGEAL	AGMELFLFLT
2C9trunc	FPNPEMFDPH	HFLDEGGNFK	KSKYFMPFSA	GKRICVGEAL	AGMELFLFLT
2C9-FGloop	FPNPEMFDPH	HFLDEGGNFK	KSKYFMPFSA	GKRICVGEAL	AGMELFLFLT
2C9-P220	FPNPEMFDPH	HFLDEGGNFK	KSKYFMPFSA	GKRICVGEAL	AGMELFLFLT
	460	470	480	490	500
2C9	SILQNFNLKS	LVDPKNLDTT	PVVNGFASVP	PFFYQLCFIPV	-----
2C9trunc	SILQNFNLKS	LVDPKNLDTT	PVVNGFASVP	PFFYQLCFIPV	HHHH-----
2C9-FGloop	SILQNFNLKS	LVDPKNLDTT	PVVNGFASVP	PFFYQLCFIPV	HHHH-----
2C9-P220	SILQNFNLKS	LVDPKNLDTT	PVVNGFASVP	PFFYQLCFIPV	HHHH-----

Figure 10

Sheet 514 of 514

Diclofenac Metabolism**K_m/V_{max}**

P450 Isoform	K _m (μM)	V _{max} (min ⁻¹)
Published data	8-15	15-40
2C9 trunc	8.9	21.7
2C9-FGloop K206E	11.9	10.8

Figure 11

Sequence Listing:

2C9trunc

SEQ ID NO:1

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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGAGTTGAATGAAACATCAAGATTTTGAAGCAGCCCTGGATCCAGATCTGCAATAATTTTTC
TCCTATCATTGATTACTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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AAAGTAAATACTTTCATGCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
ACCTCCATTTTACAGAACTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

SEQ ID NO:2

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHG YEAVKEALIDLGEFSGRGI FPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQICNNFSPIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLILSLTSLVLDHNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSLQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1072 (2C9-P220)

SEQ ID NO:3

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGAGTTGAATGAAACATCAAGATTTTGAAGCAGCCCTGGATCCAGATCTGCAATAATTTTCC
GACCATCATTGATTACTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACAACAAAGAATTTCCCAACCCAGAGATGTTTGACCTCATCACTTTCTGGATGAAGGTGGCAATTTAAGA
AAAGTAAATACTTTCATGCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
ACCTCCATTTTACAGAACTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

SEQ ID NO:4

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ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQICNNFPTIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLILSLTSLVLDHNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSLQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

2C9-FGloop (1015)

SEQ ID NO:5

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT

TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAGAT
CAGCAATTTCTTAACCTTAATGGAAAAAGTTGAATGAAAACATCAAGATTTTGTAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTTGATTGCTTCTGATGAAAAATGGAGAAGGAAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAAACACTGCAGTTGACTTGTTTGGAGCTGGGACAGAGACGACAGCACAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGACAGGTCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCACTGACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACAACAAAGAATTTCCCAACCCAGAGATGTTTGACCTCATCACTTTCTGGATGAAGGTGGCAATTTAAGA
AAAGTAAATACCTTCATGCTTTCTCAGCAGGAAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTG
ACCTCCATTTTACAGAACCTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACAGCTCTGCTTATTCTGTCCACCACCACCTGA

SEQ ID NO:6

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRGIFPLAER
ANRGFGIVFNSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHRRFDYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCLMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1155 (2C9-FGloop K206E)

SEQ ID NO:7

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TGATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAATGTTTTAGCAATGGAAGAAATGGAAGAGATCCGGCGTTTCTCCCTCATGACGCTGCCGAATTT
TGGAGCTGGGGAAGAGGAGCATGAGGACCGTGTTCAGAGGAAGCCCGCTGCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAGAT
CAGCAATTTCTTAACCTTAATGGAAAAAGTTGAATGAAAACATCGAGATTTTGTAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAAATGGAGAAGGAAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAAACACTGCAGTTGACTTGTTTGGAGCTGGGACAGAGACGACAGCACAACCT
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TGTGCCGCCCTTCTACAGCTCTGCTTATTCTGTCCACCACCACCTGA

SEQ ID NO:8

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QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCLMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1078 SEQ ID NO:9 & 10

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GCTAACAGAGGATTGGAATGTTTTAGCAATGGAAGAAATGGAAGAGATCCGGCGTTTCTCCCTCATGACGCTGCCGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAGCGCTTTGATTATAAGAT
CAGCAATTTCTTAACCTTAATGGAAAAAGTTGAATGAAAACATCAAGATTTTGTAGCAGCCCTGGATCCAGATCTGCAATAATTTCC
GCCATCTGATTGATTGCTTCCCGGGAACCTCACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAAATGGAGAAGGAAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAAACACTGCAGTTGACTTGTTTGGAGCTGGGACAGAGACGACAGCACAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGACAGGTCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCACTGACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
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TGTGCCGCCCTTCTACCAGCTGTGCTTCACTCTGTCATCATCATCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
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QQFLNLMKLNENIKILSSPWIQCNFPPIIDYFPGTHNLLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMMEKEKH
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSLQNFNLKSLVDPKNDLTPVNVGFASVPPYQLCFIPVHHHH

1081 SEQ ID NO:11 & 12

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TGCTGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGAGAGGAGTCTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAATGTGTTTTCAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
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ACCAGCTGCCCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
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ACCTCCATTTTACAGAACTTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCTC
TGTGCCGCCCTTCTACCAGCTGTGCTTCACTCTGTCCACCACCACCTGA

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QQFLNLMKLNENIKILSSPWIQVNNFPALLDYFPGTHNLLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMMEKEKH
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSLQNFNLKSLVDPKNDLTPVNVGFASVPPYQLCFIPVHHHH

1082 SEQ ID NO:13 & 14

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TGCTGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGAGAGGAGTCTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAATGTGTTTTCAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTTAATGGAAGAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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AAGATAAATACCTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQVNNFPALLDYFPGTHNLLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMMEKEKH
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSLQNFNLKSLVDPKNDLTPVNVGFASVPPYQLCFIPVHHHH

1085 SEQ ID NO:15 & 16

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAATTGTTTTCAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
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GAGCAATTTCTTAACCTTAATGGAAGAGTTGAATGAAAACATCAAGATTTTGGAGAGCCCTGGATCCAGGTCTACAATAATTTCCC
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CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAAACCT
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GGAGCCCTGCATGAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCACTGACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAAATTTCCCTGAC
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ACCTCCATTTTACAGAATTTAACTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTATTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRGIFPLAER
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QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPVETAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHFLDEGNGFKKSKYFMFBSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNGFASVPPFYQLCFIPVHHH

1097 SEQ ID NO:17 & 18

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TGGGATGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAAGAT
CAGGAATTTCTTAACCTTAATGGAAGAGTTGAATGAAAACATCAAGATTTTGGAGAGCCCTGGATCCAGGTCTACAATAATTTCCC
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ACCAGCTGCCCATGCACTGACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAAATTTCCCTGAC
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TGTGCCGCCCTTCTACCAGCTCTGCTTATTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRGIFPLAER
ANRGFGIVFSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QEFLNLMKLNENIKILSSPWIQVYNNFALLDYFPGTHNKLKKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPVETAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHFLDEGNGFKKSKYFMFBSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNGFASVPPFYQLCFIPVHHH

1100 SEQ ID NO:19 & 20

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GCTAACAGAGGATTGGAATTGTTTTCAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAAGAT
CAGCAATTTCTTAACCTTAATGGAAGAGTTGAATGAAAACATCAAGATTTTGGAGAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAAAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
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GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTCACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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TGTGCCGCCCTTCTACCAGCTCTGCTTCTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRIIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFYDKD
QQFLNLMKLNENIKILSSPWIVQYNNFPALLDYFPGTHNKLKLVAFMKSYLEKVKEHQKSMMDMNPQDFIDCFMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITLISLTVLHDKNEFPNPFMDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1101 SEQ ID NO:21 & 22

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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACAAATTAATAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGCAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGAAAAACACTGCAGTTGACTTGTTTGGAGCTGGGACAGAGACGACAAGCACAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRIIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFYDKD
QQFLNLMKLNENIKILSSPWIVQYNNFPALLDYFPGTHNKLKLVAFMKSYLEKVKEHQESMDMNPQDFIDCFMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITLISLTVLHDKNEFPNPFMDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1102 SEQ ID NO:23 & 24

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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
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CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
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ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRIIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFYDKD
QQFLNLMKLNENIKILSSPWIVQYNNFPALLDYFPGTHNKLKLVAFMKSYLEKVKEHQESMDMNPQDFIDCFMKMEKEDD
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP

TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1115 SEQ ID NO:25 & 26

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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTATCCTCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAGAT
CAGCAATTTCTTAATTAATGAAAAGTTGAATGAAAACATCAAGATTTTGAAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLNLSKVYGPVFTLYFGLKPIVVLHG YEAVKEALIDLGE EFSGRGIFPLAER
ANRFGIVFSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHHFLDAGGNFKKSKYFMPFSAGKRICVGEALAGMELFLFL
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1116 SEQ ID NO:27 & 28

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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTATCCTCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAGAT
CAGCAATTTCTTAATTAATGAAAAGTTGAATGAAAACACTCAAGATTTTGAAGAGCCCTGGATCCAGGTCTACAATAATTTCCC
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GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
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ACCTCCATTTTACAGAACCTTAACCTGAAATCTCTGTTGACCCAGGGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCTGCTGCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLNLSKVYGPVFTLYFGLKPIVVLHG YEAVKEALIDLGE EFSGRGIFPLAER
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QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
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1117 SEQ ID NO:29 & 30

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAAATGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
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CAGCAATTTCTTAACCTTAATGGAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
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GAGATATGCTCTCCTTCTCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
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TGTGCCGCCCTTCTACCAGCTCTGCTTCACTTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIADISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGI FPLAER
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QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPFTHNKLKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCFMLKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQYIDLLP
TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHFLDEGNGFKKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNGFASVPPFYQLCFIPVHHHH

1118 SEQ ID NO:31 & 32

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGAGAGGAGTCTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCGGCCCTCAC
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CAGCAATTTCTTAACCTTAATGGAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
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ACCTCCATTTTACAGAACCTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCACTTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGI FPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMKRSIEDRVQEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPFTHNKLKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCFMLKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQYIDLLP
TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHFLDEGNGFKKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNGFASVPPFYQLCFIPVHHHH

1121 SEQ ID NO:33 & 34

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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGCCCTCAC
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TGCTCTCCTTGATTATTTCCCGGGAACCTCACAAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGAAAAAGTAA
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CAACCATCTGAATTTACTATTGAAAGCTTGGAACCACTGCAGTTGACTTGTGTTGGAGCTGGGACAGAGACGACAAGCACAAACCT
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GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAGTGACCTGTGACATTAAATTCAGAAATATCTCATTCCCAAGGGCACAACCATATTAAATTTCCCTGAC
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ACCTCCATTTTACAGAACCTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCACTTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLENENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMLKMEAEKHN
QPSEFTTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1122 SEQ ID NO:35 & 36

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GCTAACAGAGGATTGGAATTGTTTTAGCAATGGAAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGCCCTCAC
CCTGTGATCCCACTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTTAATGAAAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACTTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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ACCAGCTGCCCATGCAGTGACCTGTGACATTAATTCAGAACTATCTCATTTCCCAAGGGCACAAACCATATTAAATTTCCCTGAC
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TGTGCCGCCCTTCTACAGCTCTGCTTCATTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYAAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLENENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMLKMEAEKHN
QPSEFTTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1123 SEQ ID NO:37 & 38

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GCTAACAGAGGATTGGAATTGTTTTAGCAATGGAGCGGATGGGCGGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGCCCTCAC
CCTGTGATCCCACTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTTAATGAAAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACTTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACCTGCAGTTGACTTGTGTTGGAGCTGGGACAGAGACGACAAAGCACAAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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ACCAGCTGCCCATGCAGTGACCTGTGACATTAATTCAGAACTATCTCATTTCCCAAGGGCACAAACCATATTAAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTAACTGAAATCTCTGTTGACCCAAAGAACCTTGACACCCTCCAGTTGTCAATGGATTGCTCTC
TGTGCCGCCCTTCTACAGCTCTGCTTCATTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGAAWAEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLENENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMLKMEAEKHN
QPSEFTTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1165 SEQ ID NO:39 & 40

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAACATCAAGATTTTGGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACTCT
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TCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACCGGAGCCCT
GCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCAGGAGTCCAGAGATACATTGACCTTCTCCCAACAGCCTG
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TTACAGAATTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCCTCTGTGCCGCC
CTTCTACAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVGINILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSGKKWKEIRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKLSSPWIQVYNNFPALLDYFPGTHNKLKLVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKHS
EFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHQAAGTAAAT
PHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFLTSI
LQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1220 SEQ ID NO:41 & 42

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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAACATCAAGATTTTGGAGCAGCCCTGGATCCAGATCTGCAATAATTTTCC
TTCTATCATTGATTACTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTGGAAAAAGTAA
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GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCAGGAGTCCAGAGATACATTGACCTTCTCCCA
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAATTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTC
TGTGCCGCCCTTCTACAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVGINILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSGKKWKEIRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKLSSPWIQICNNFPSIIDYFPGTHNKLKLVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1319 SEQ ID NO:43 & 44

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCGCCTGGCCCCACTCCTCTCCAGTGATTGGAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAACATCAAGATTTTGGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
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GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCAGGAGTCCAGAGATACATTGACCTTCTCCCA
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGSKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSFILEKVKEHQESMDMNNPQDFIDCFMLKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHDNKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTT PVVNGFASVPPFYQLCFIPVHHHH

1339 SEQ ID NO:45 & 46

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TGATGATGATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGAGAGGAGTCTTCTGGAAGAGGCATTTCCCACTGGTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTGTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTTGATTATAAGAT
CAGCAATTTCTTAACCTTAATGAAAAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACACAAATTACTTAAAAACGTTGCTTTTATGAAAGTTTTATTTGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
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GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSFILEKVKEHQESMDMNNPQDFIDCFMLKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHDNKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
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1340 SEQ ID NO:47 & 48

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TGATGATGATGAGCAGTGAAGGAAGCCCTGATTGATCTTGAGAGGAGTCTTCTGGAAGAGGCATTTCCCACTGGTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTGTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTTGATTATAAGAT
CAGCAATTTCTTAACCTTAATGAAAAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
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TGTGCCGCCCTTCTACCAGCTGTGCTTCATTCTGTCCATCATCATCATTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYAAVKEALIDLGEFSGRGIFPLAER
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QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSFILEKVKEHQESMDMNNPQDFIDCFMLKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHDNKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTT PVVNGFASVPPFYQLCFIPVHHHH

11/24

1361 SEQ ID NO:49 & 50

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCGCCCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
GGACATCAGCAAAATCCTTAACCAATCTCTCAAAGGTCTATGGCCCTGTGTTCACTCTGTATTTTGGCCTGAAACCCATAGTGGTGC
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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCCTCAC
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CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGATTTACAATAATTTCCC
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GGAGCCCTGCGATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGIPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIHFKRFYKD
QQFLNLMKLNENIKILSSPWIIQYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITILISLTVLHDNKEFPNPEMDFPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1362 SEQ ID NO:51 & 52

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCGCCCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAATTGTTTTAGCAATGGAAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCCTCAC
CCTGTGATCCCACTTTTCACTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTGCAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACTGCAAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTCAGAGTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCGATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACACAAAGAATTCCCAACCCAGAGATGTTGACCCCTCATCACTTTCTGGATGAAGGTGGCAATTTAAGA
AAAGTAAATACTTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTG
ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACAGCTGTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGIPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIHFKRFYKD
QQFLNLMKLNENIKILSSPWIIQVCNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITILISLTVLHDNKEFPNPEMDFPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1363 SEQ ID NO:53 & 54

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCGCCCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAATTGTTTTAGCAATGGAAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCCTCAC
CCTGTGATCCCACTTTTCACTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTATCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACTGCAAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT

12/24

GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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ACCAGCCTGCCCATGCAAGTACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTCTGCTTCTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIPLAER
ANRFGIVFSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLENENIKILSSPWIQVYNNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPVETAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1364 SEQ ID NO: 55 & 56

ATGGCTAAGAAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTTAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAGTTGAATGAAAACATCAAGATTTTGGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCATTGATTATTTCCCGGGAACCTCACAACTTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCCGTCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTCTGCTTCTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIPLAER
ANRFGIVFSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLENENIKILSSPWIQVYNNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPVETAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1366 SEQ ID NO: 57 & 58

ATGGCTAAGAAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTTAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAGTTGAATGAAAACATCAAGATTTTGGAGCAGCCCTGGATCCAGATTGCAATAATTTCCC
TGCTCTCCTTGTATTATTTCCCGGGAACCTCACAACTTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTTAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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TGTGCCGCCCTTCTACCAGCTCTGCTTCTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIPLAER
ANRFGIVFSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLENENIKILSSPWIQVYNNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPVETAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL

TS LPHAVTCDIKFRNYLIPKGT TILISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1367 SEQ ID NO: 59 & 60

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCACTCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCTGGATCCAGATTTGCAATAATTTCCC
TGCTCTCATTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
CAACCATCTGAATTTACTATTGAAAGCTTGAAAAACACTGCAGTTGACTTGTGTTGGAGCTGGGACAGAGACGACAAGCACAAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCTATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGTTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCACTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFFLAER
ANRFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQICNNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TS LPHAVTCDIKFRNYLIPKGT TILISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1368 SEQ ID NO: 61 & 62

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCACTCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAAGTTGAATGAAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGATTTGCAATAATTTCCC
TGCTATCATTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
CAACCATCTGAATTTACTATTGAAAGCTTGAAAAACACTGCAGTTGACTTGTGTTGGAGCTGGGACAGAGACGACAAGCACAAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCTATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGTTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTCATGCTTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
ACCTCCATTTTACAGAACTTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCACTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFFLAER
ANRFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQICNNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKEVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TS LPHAVTCDIKFRNYLIPKGT TILISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1369 SEQ ID NO: 63 & 64

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCACTCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT

CAGCAATTTCTTAACCTTAATGAAAAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTATCATTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGAAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAATTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTCTGCTTCTCCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFYDKD
QQFLNLMKLNENIKILSSPWIVQYNNFPAIDYFPGTHNKLKNVAFMKSYILEKVEKHQESMDMNNPQDFIDFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLILSLTSLVLDHNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1370 SEQ ID NO: 65 & 66

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTGGAGAGGAGTTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCACTCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTTAATGAAAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCCCTGGATCCAGGTCTGCAATAATTTCCC
TGCTATCATTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGAAAAAGTAA
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CAACCATCTGAATTTACTATTGAAAGCTTGAAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTTCATGCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
ACCTCCATTTTACAGAATTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTCTGCTTCTCCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFYDKD
QQFLNLMKLNENIKILSSPWIVQYNNFPAIDYFPGTHNKLKNVAFMKSYILEKVEKHQESMDMNNPQDFIDFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLILSLTSLVLDHNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
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1371 SEQ ID NO: 67 & 68

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
GGACATCAGCAAAATCCTTAACCAATCTCTCAAAGGTCTATGGCCCTGTGTTCACTCTGTATTTGGCCTGAAACCCATAGTGGTGC
TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTGGAGAGGAGTTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCACTCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTTAATGAAAAGTTGAATGAAACATCAAGATTTTGAGCAGCCCCCTGGATCCAGATTGCAATAATTTCCC
TGCTCTCATTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGAAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
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ACCAGCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAATTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTGTGCTTCTCCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQIYNNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1372 SEQ ID NO:69 & 70

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCTCTGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGATTTCTAATAATTTCCC
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ACCAGCCTGCCCCATGCAGTGACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTAACTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTCTGCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQISNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1391 SEQ ID NO:71 & 72

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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTCATCTCTGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAACTTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTGAAAAAGTAA
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TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTCTGCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALIDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1392 SEQ ID NO:73 & 74

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCCTCAC
CCTGTGATCCCATTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAAAGTTGAATGAAAACATCAAGATTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTGGAAAAAGTAA
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CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCGAGTTGACTTGTGAGAGCTGGGACAGAGACGACAAGCACAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTTGATTGGCAGAAAAC
GGAGCCCTGTCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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TGTGCCGCCCTTCTACAGCTCTGCTTCATTCTCTGCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIHFKRFYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKLVAFMKSYLEKVKEHHESMDMNNPQDFIDCFLMKMEKEKN
QPSEFTIESLENTAVDLFGAGTETTTLLRYALLLLKHPVETAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHH

1394 SEQ ID NO:75 & 76

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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGCTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAAGTTGACTTGTGAGAGCTGGGACAGAGACGACAAGCACAACCT
GAGATATGCTCTCCTTCTCCTGTGCTGAAGCAGGAGGTCCAGAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAAAC
GGAGCCCTGTCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACACCTCTGCTTCATTCTCTGCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIHFKRFYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKLVAFMKSYLEKVKEHESMDMNNPQDFIDCFLMKMEKEKN
QPSEFTIESLENTAVDLFGAGTETTTLLRYALLLLKHPVETAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYHLCFIPVHHH

1396 SEQ ID NO:77 & 78

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TGATGGATATGAAGCAGTGAAGGAGCCCTGATTGATCTTGAGAGGAGATTTCGGAAGAGGCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCCTCAC
CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGCTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAAGTTGACTTGTGAGAGCTGGGACAGAGACGACAAGCACAACCT
GAGATATGCTCTCCTTCTCCTGTGCTGAAGCAGGAGGTCCAGAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAAAC
GGAGCCCTGTCATGAGCGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
ACCTCCATTTTACAGAACTTTAACTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCTG
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMEKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTLLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMSDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHONKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTPVVNGFASVPPFYQLCFIPVHHHH

1397 SEQ ID NO:79 & 80

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GCTAACAGAGGATTGGAAATGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
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CAGCAATTTCTTAACCTTAATGAAAAAGTTGAATGAAACATCAAGATTTTGAAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGTATTATTTCCCGGGAACCTCACACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
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GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAGTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAAATTTCCCTGAC
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AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAATCGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
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TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMEKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTLLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMSDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHONKEFPNPEMFDPHFLDVGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTPVVNGFASVPPFYQLCFIPVHHHH

1424 SEQ ID NO:81 & 82

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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GCTAACAGAGGATTGGAAATGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
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CAGCAATTTCTTAACCTTAATGAAAAAGTTGAATGAAACATCAAGATTTTGAAGCAGCCCTGGATCCAGATCTGCAATAATTTTTC
TGCTCTATTGATTACTTCCCGGGAACCTCACACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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ACCAGCCTGCCCATGCAGTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAAATTTCCCTGAC
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMEKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDFLMKMEKEKHN
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TSLPHAVTCDIKFRNYLIPKGTITILISLTSVLHONKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTPVVNGFASVPPFYQLCFIPVHHHH

1443 SEQ ID NO:83 & 84

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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
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CAGCAATTTCTTAACCTAATGGAAGGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
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AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAC
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GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAAAATGTGATTGGCAGAAAAC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGI FPLAER
ANRFGIVFSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLNENIKILSSPWIQVYNNFPALLDYFPGTHNKLKKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHFLDEGNGFKSKYFMPFSAGKRICVGEALAGMELFLFL
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1444 SEQ ID NO:85 & 86

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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCACTCCTGGGCTGTGCTCCCTGCAATGTGATGCTCCATTATTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGGTTGAATGAAAACATCCACATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGATGAAAAGTCCAGGAAGAGATTGAACGTTGATTGGCAGAAAAC
GGAGCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACAACAAAGAAATTTCCCAACCCAGAGATGTTGACCTCATCACTTTCTGGATGTTGGTGGCAATTTAAGA
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ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT
TGTGCCGCCCTTCTACCAGCTCTGCTTCACTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGI FPLAER
ANRFGIVFSNGKKWEIRRFSLMTLRNFGMGKRSIEDRVQEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLNENIHLSSPWIQVYNNFPALLDYFPGTHNKLKKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHFLDVGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNGFASVPPFYQLCFIPVHHH

1475 SEQ ID NO:87 & 88

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCACTCCTGGGCTGTGCTCCCTGCAATGTGATGCTCCATTATTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGGTTGAATGAAAACATCGAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACCACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT

GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCCGTCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTCTGCTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHHKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVHVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVGAFASVPPFYQLCFIPVHHHH

1477 SEQ ID NO:89 & 90

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCTCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAGTTGAATGAAAACATCGAGATTTTGAAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
CAACCATCTGAATTTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACAACAAAGAAATTTCCCAACCCAGAGATGTTTGACCCTCATCACTTTCTGGATGAAGGTGGCAATTTAAGA
AAAGTAAATACTTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTCTG
ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTCTGCTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGISPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHHKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVHVHEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVGAFASVPPFYQLCFIPVHHHH

1491 SEQ ID NO:91 & 92

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCTCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTTGATTATAAAGAT
CAGCAATTTCTTAACCTAATGAAAAGTTGAATGAAAACATCGAGATTGCGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTCACAAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
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ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTCTGCTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHHKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVHVHEVQRYIDLLP

20/24

TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVGAFASVPPFYQLCFIPVHHHH

1595 SEQ ID NO:93 & 94

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCCTGGCCCCACTCCTCTCCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTCGCGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCAATTTCACTCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGGTTGAATGAAACATCGAGATTTTGGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCCATAACAAATTACTTAAAAACCTTGCTTTTATGGAAGTGATATTTTGGAGAAAGTAA
AAGAACACCAAGAATCGATGGACATCAACAACCTCGGGACTTTATTGATTGCTTCTGATCAAAATGGAGAAGGAAAGCAAAAC
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GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGCTTGGCAGAAACC
GGAGCCCTGCTGATGAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTTATTCCTG
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MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFGRGHFPLAER
ANRFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKLNLFAMESDILEKVKEHQESMDINNPRDFIDCFLIKMEKEKQ
QSEFTIENLVITAADLLGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVVGGRNRSPCMQRSHMPYTDVAVHEVQRYIDLIP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
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1600 SEQ ID NO:95 & 96

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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTCGCGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCAATTTCACTCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT
CAGCAATTTCTTAACCTAATGGAAGGTTGAATGAAACATCGAGATTTTGGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAAC
CAACCTCTGAATTCATATTGAAACTTGGTAATCACTGCAGCTGACTTACTTGGAGCTGGGACAGAGACAACAAGCACAAACCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGCTTGGCAGAAACC
GGAGCCCTGCTGATGAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTATCCCC
ACCAGCCTGCCCATGCAAGTACCTGTGACATTAAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTTATTCCTG
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TGTGCCGCCCTTCTACCAGCTCTGCTTCACTCTGTCCACCACCACCTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFGRGHFPLAER
ANRFGIVFSNGKKWKEIRRFSLMTLRNFGMKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKLNLFAMESDILEKVKEHQESMDMNNPQDFIDCFLMKMEKEKHN
QPSEFTIENLVITAADLLGAGTETTTSTLRYALLLLKHPEVTAKVQEEIERVVGGRNRSPCMQRSHMPYTDVAVHEVQRYIDLIP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHONKEFPNPEMFDPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
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1610 SEQ ID NO:97 & 98

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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCCATTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTCGCGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTCAAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCAATTTCACTCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAAGAT

CAGCAATTTCTTAACCTTAATGGAAAAGTTGAATGAAAACATCGAGATTTTGAGCAGCCCCCTGGATCCAGGTCTACAATAATTTCCCTGCTCTCCTTGATTATTTCCCGGGAACCTCACAAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAAAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAACAACCATCTGAATTTCACTATTGAAAACCTTGTAATCACTGCAGCTGACTTACTTGGAGCTGGGACAGAGACAACAAGCACAAACCTGAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTCACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC GGAGCCCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC TTCTGTGCTACATGACAACAAGAATTTCCCAACCCAGAGATGTTTGACCTCATCACTTCTGGATGAAGGTGGCAATTTTAAGA AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTTATTCCTG ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT GTGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGIFPLAER ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFYDKD QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMCKMEKEKHN QPSEFTIENLVITAADLLGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1632 SEQ ID NO:99 & 100

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA GGACATCAGCAATCCTTAACCAATCTCTCAAAGGTCTATGGCCCTGTGTCTACTCTGTATTTTGGCCTGAAACCCATAGTGGTGC TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGAGAGGAGTTTTCTGGAAGAGGCCATTTCCCACTGGCTGAAAGA GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT CAGCAATTTCTTAACCTTAATGAAAAGTTGAATGAAAACATCGAGATTTTGAGCAGCCCCCTGGATCCAGGTCTACAATAATTTCC TGTCTCCTTGATTATTTCCCGGGAACCTCACAAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAA CCAACCATCTGAATTTCACTATTGAAAACCTTGGTAATCACTGCAGTGACTTACTTGGAGCTGGGACAGAGACAACAAGCACAAACCT GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC GGAGCCCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC TTCTGTGCTACATGACAACAAGAATTTCCCAACCCAGAGATGTTTGACCCCTCATCACTTTCTGGATGAAGGTGGCAATTTTAAGA AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTTATTCCTG ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT GTGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFSGRGHFLAER ANRGFGIVFSNGKKWKEIRRFSLMTLRNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFYDKD QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMCKMEKEKHN QPSEFTIENLVITAADLLGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVAVHEVQRYIDLPL TSLPHAVTCDIKFRNYLIPKGTILISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHHH

1661 SEQ ID NO:101 & 102

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA GGACATCAGCAATCCTTAACCAATCTCTCAAAGGTCTATGGCCCTGTGTCTACTCTGTATTTTGGCCTGAAACCCATAGTGGTGC TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGAGAGGAGTTTTCTGGAAGAGGCCATTTCCCACTGGCTGAAAGA GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC CCTGTGATCCCACTTTTCATCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTTCCATAAACGTTTTGATTATAAAGAT CAGCAATTTCTTAACCTTAATGAAAAGTTGAATGAAAACATCGAGATTTTGAGCAGCCCCCTGGATCCAGGTCTACAATAATTTCC TGTCTCCTTGATTATTTCCCGGGAACCTCACAAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAA CCAACCATCTGAATTTACTATTGAAAACCTTGGAAATCACTGCAGTTGACTTGTTTGGAGCTGGGACAGAGACGACAAGCACAAACCT GAGATATGCTCTCCTTCTCCTGCTGAAGCACCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC GGAGCCCCCTGCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC ACCAGCCTGCCCATGCAAGTACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC TTCTGTGCTACATGACAACAAGAATTTCCCAACCCAGAGATGTTTGACCCCTCATCACTTTCTGGATGAAGGTGGCAATTTTAAGA AAAGTAAATACTTCATGCCTTTCTCAGCAGGAAAACGGATTTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTTATTCCTG ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCT GTGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRGHFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMLKMEKEKH
QPSEFTIENLEITAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTIILISLTSVLHDNKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1662 SEQ ID NO:103 & 104

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCCTGGCCCCACTCCTCTCCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTGGAATTGTTTTTCAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTGAATGAAAACATCGAGATTTTGGAGCAGCCCTGGATCCAGGTCTACAATAATTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAACCTTGAAAACACTGCAGTTGACTTGTGTTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCAGCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCGATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACAACAAAGAATTTCCCAACCCAGAGATGTTTGAACCTCATCACTTTCTGGATGAAGGTGGCAATTTTAAGA
AAAGTAAATACTTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTTATTCCTG
ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTC
TGTGCCGCCCTTCTACAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMLKMEKEKH
QPSEFTIENLEITAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTIILISLTSVLHDNKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1664 SEQ ID NO:105 & 106

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCCTGGCCCCACTCCTCTCCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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GCTAACAGAGGATTGGAATTGTTTTTCAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGTATTATAAGAT
CAGCAATTTCTTAACCTAATGGAAGTGAATGAAAACACTGCAGATTGTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTTCCC
TGCTCTCCTTGATTATTTCCCGGGAACCTACAACAAATTACTTAAAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTCTGATGAAAATGGAGAAGGAAAAGCACAAC
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GAGATATGCTCTCCTTCTCCTGCTGAAGCAGCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGCGATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTTCATGCCTTTCTCAGCAGGAAAACGGATTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTTATTCCTG
ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTC
TGTGCCGCCCTTCTACAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSII FHKRFDYKD
QQFLNLMKLNENIEILSSPWIQVYNNFPALLDYFPGTHNKLKNVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMLKMEKEKH
QPSEFTIENLEITAVDLFGAGTETTSTTLRYALLLLKHPEVTAQVQEEIERVIGRNRSPCMQDRSHMPYTDVVHEVQRYIDLPL
TSLPHAVTCDIKFRNYLIPKGTIILISLTSVLHDNKEFPNPEMDFPHHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1039 SEQ ID NO:107 & 108

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCCTGGCCCCACTCCTCTCCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA

GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTTAATGGAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGATCTGCAATAATTTTTC
TGCTATCATTGATTACTTCCCGGAACTCACAACAAATTAATAAACGTTGCTTTTATGAAAAGTTATATTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGTCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCAGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
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AAAGTAAATACTTTCATGCCTTTCTCAGCAGGAAAACGGATTTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTG
ACCTCCATTTTACAGAACTTTAACTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCTG
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGI FPLAER
ANRGFGIVFSGNKKWKEIRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKKRFDYKD
QQFLNLMKLNENIKILSSPWIIQICNNFSAIIDYFPGTHNKLKLVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVVEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLILSLTSLVLDHNDKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHH

1365 SEQ ID NO:109 & 110

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
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GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTTAATGGAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGGTCTACAATAATTTCTC
TGCTCTCCTTGATTATTTTCCCGGAACTCACAACAAATTAATAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
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CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTTTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGTCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACAACAAAGAATTTCCCAACCCAGAGATGTTTGACCTCATCACTTTCTGGATGAAGGTGGCAATTTAAGA
AAAGTAAATACTTTCATGCCTTTCTCAGCAGGAAAACGGATTTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTG
ACCTCCATTTTACAGAACTTTAACTGAAATCTCTGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCTCTG
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEESFSGRGI FPLAER
ANRGFGIVFSGNKKWKEIRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKKRFDYKD
QQFLNLMKLNENIKILSSPWIIQVNNFSALLDYFPGTHNKLKLVAFMKSYLEKVKEHQESMDMNNPQDFIDCFMKMEKEKH
QPSEFTIESLENTAVDLFGAGTETSTTLRYALLLLKHPEVTAKVQEEIERVIGRNRSPCMQDRSHMPYTDVVVEVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLILSLTSLVLDHNDKEFPNPEMFDPHFLDEGGNFKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVNVGFASVPPFYQLCFIPVHHH

1423 SEQ ID NO:111 & 112

ATGGCTAAGAAAACGAGCTCTAAAGGGCGGCCGCTGGCCCCACTCCTCTCCAGTGATTGGAAATATCCTACAGATAGGTATTAA
GGACATCAGCAAAATCCTTAACCAATCTCTCAAAGGTCTATGGCCCTGTGTTCACTCTGTATTTTGGCCTGAAACCCATAGTGGTGC
TGCATGGATATGAAGCAGTGAAGGAAGCCCTGATTGATCTTGGAGAGGAGTTTCTGGAAGAGGCATTTTCCCACTGGCTGAAAGA
GCTAACAGAGGATTTGGAATTGTTTTAGCAATGGAAGAAATGGAAGGAGATCCGGCGTTTCTCCCTCATGACGCTGCGGAATTT
TGGGATGGGGAAGAGGAGCATTGAGGACCGTGTTCAGAGGAAGCCCGCTGCCTTGTGGAGGAGTTGAGAAAAACCAAGGCCTCAC
CCTGTGATCCCACTTTTCATCCTGGGCTGTGCTCCCTGCAATGTGATCTGCTCCATTATTTCCATAAACGTTTGGATTATAAGAT
CAGCAATTTCTTAACCTTAATGGAAGTTGAATGAAAACATCAAGATTTTGAGCAGCCCTGGATCCAGATCTGCAATAATCCTTC
TGCTATCATTGATTACTTCCCGGAACTCACAACAAATTAATAAACGTTGCTTTTATGAAAAGTTATATTTTGGAAAAAGTAA
AAGAACACCAAGAATCAATGGACATGAACAACCCCTCAGGACTTTATTGATTGCTTCTGATGAAAATGGAGAAGGAAAAGCACAAC
CAACCATCTGAATTTACTATTGAAAGCTTGGAAAACACTGCAGTTGACTTGTTTGGAGCTGGGACAGAGACGACAAGCACAACCCCT
GAGATATGCTCTCCTTCTCCTGCTGAAGCACCCAGAGGTACAGCTAAAGTCCAGGAAGAGATTGAACGTGTGATTGGCAGAAACC
GGAGCCCTGTCATGCAAGACAGGAGCCACATGCCCTACACAGATGCTGTGGTGCACGAGGTCCAGAGATACATTGACCTTCTCCCC
ACCAGCCTGCCCATGCACTGACCTGTGACATTAATTCAGAACTATCTCATTCCCAAGGGCACAACCATATTAATTTCCCTGAC
TTCTGTGCTACATGACAACAAAGAATTTCCCAACCCAGAGATGTTTGACCTCATCACTTTCTGGATGAAGGTGGCAATTTAAGA
AAAGTAAATACTTTCATGCCTTTCTCAGCAGGAAAACGGATTTGTGTGGGAGAAGCCCTGGCCGGCATGGAGCTGTTTTATTCTG

ACCTCCATTTTACAGAACTTTAACCTGAAATCTCTGGTTGACCCAAAGAACCTTGACACCACTCCAGTTGTCAATGGATTGCGCTC
TGTGCCGCCCTTCTACCAGCTCTGCTTCATTCTGTCCACCACCACCACTGA

MAKKTSSKGRPPGPTPLFPVIGNILQIGIKDISKSLTNLSKVYGPVFTLYFGLKPIVVLHGYEAVKEALIDLGEFFSGRGIFPLAER
ANRGFGIVFSNGKKWKEIRRFSLMTRLNFGMGKRSIEDRVQEEARCLVEELRKTASPCDPTFILGCAPCNVICSIIFHKRFDYKD
QQFLNLMEKLNENIKILSSPWIQICNNPSAIIIDYFPGTHNKLKKNVAFMKSYILEKVKEHQESMDMNNPQDFIDCFLMKMEKEKHN
QPSEFTIESLENTAVDLFGAGTETTSTTLRYALLLLKHPEVTAKVQEEIERVIGNRNSPCMQDRSHMPYTDVVVEHVQRYIDLLP
TSLPHAVTCDIKFRNYLIPKGTTLISLTSVLHDNKEFPNPEMFDPHFLDEGGNFKKSKYFMPFSAGKRICVGEALAGMELFLFL
TSILQNFNLKSLVDPKNLDTTPVVNGFASVPPFYQLCFIPVHHHH

1. The present invention relates to a method of
2. determining the sequence of a nucleic acid
3. molecule, comprising the steps of:
4. (a) providing a sample of the nucleic acid
5. molecule;
6. (b) amplifying the sample;
7. (c) sequencing the amplified sample;
8. (d) determining the sequence of the nucleic acid
9. molecule based on the sequencing results.
10. The method of the present invention is particularly
11. useful for determining the sequence of a nucleic acid
12. molecule which is a target of a diagnostic test.
13. The method of the present invention is also useful
14. for determining the sequence of a nucleic acid
15. molecule which is a target of a therapeutic treatment.
16. The method of the present invention is also useful
17. for determining the sequence of a nucleic acid
18. molecule which is a target of a vaccine.
19. The method of the present invention is also useful
20. for determining the sequence of a nucleic acid
21. molecule which is a target of a drug.
22. The method of the present invention is also useful
23. for determining the sequence of a nucleic acid
24. molecule which is a target of a gene therapy.